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A SCHEME OF CIVIC DEVELOPMENT AND EXPANSION.





FRONTISPIECE—TOPIARY GARDEN, LEVENS HALL, WESTMORLAND

# THE ART & CRAFT *of* GARDEN MAKING

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AT THE UNIVERSITY OF  
LIVERPOOL

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***Fifth Edition***

LONDON

B. T. BATSFORD LTD., 94 HIGH HOLBORN  
NEW YORK : CHAS. SCRIBNER'S SONS

MADE AND PRINTED IN  
GREAT BRITAIN

Dedicated  
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To His Royal Highness  
Field-Marshal the Duke of Connaught



## PREFACE TO THE FIFTH EDITION.

**I**T is no small gratification to me that a fifth edition of this work is called for, in ordinary peaceful times it would have been published years ago. The period which has elapsed between the expiration of the fourth edition and the appearance of the fifth has been one of unrest calculated to retard the sale of a book of this character.

But now that the extreme tension has passed, and we are at least assured of tolerable safety, it may be said that the soundest asset against strife and unrest is to quicken the pleasures of reflection and imagination, which are what a garden and its peaceful occupations foster. Being in itself the place "where all things differ yet they all agree," a garden maintains that sense of unity in variety which is what is needed after a period of drilled uniformity.

Whilst supplying every incentive to economy and healthy activity, it ministers to the more clamant demands of beauty and fragrance, the audience chamber of romance and reflection, which are as insistent to our being as material supplies. These are the qualities which produce contentment and stabilize nations, cities, and homes. Our individual lives then fit suitably into the larger landscapes, so to speak, and are received into the bosom of all things, with happy facility.

Broadly speaking, the principles of design in the garden remain unaltered and unalterable. Nevertheless, in the sense of adaptation to modern needs there are ever-changing factors which have to be reckoned with, but none of them are fundamental. Lord Bacon's essays point the way and lay down axioms for all time, many of the latter being so weighty and potent that it has taken me a lifetime of practice to realise their truth; as, for instance, the comparison he makes between architecture and gardening, stating that the latter is the greater art. Also, when enforcing the fact that a well-chosen site is of more importance than a well-designed house and garden, he says that "whoso buildeth a fair home upon an ill seat committeth himself to prison."

The work has been re-edited, and such alterations as were necessary to meet modern needs have been incorporated, but at the same time I have carefully avoided fashions in designs which serve only the day and the hour. A soft velvety lawn and a few stately trees well spaced, are, after all, the most enduring sources of enjoyment, and blest are they who have eyes to see and hearts in unison with the grace and charm of all things to appreciate the sterling value of these broad simplicities which bind everything together in a bond of kinship and strike at once the note of serenity and peace.

To each chapter I have added a number of illustrations, selecting examples emphasizing the subject dealt with, in such a definite manner as to make further reference to them in the text unnecessary.

It only remains for me to add that to the acknowledgments already tendered in previous edition my thanks are again due to my many clients who have permitted me to illustrate their gardens. In particular I am grateful to acknowledge the assistance rendered me by my two sons, who are largely responsible for the later gardens incorporated in this edition, and to my assistants Elsie Spivey, Iris Ashwell, and T. Wearing Pennington, who have redrawn several of the plans. I also thankfully acknowledge the loan of blocks from the "Architectural Record" after being used to illustrate my articles on gardens in this excellent American Magazine.

THOMAS H. MAWSON.

HIGH STREET HOUSE, LANCASTER,  
*April, 1926*

## PREFACE TO THE FOURTH EDITION.

THE fact that my book "THE ART AND CRAFT OF GARDEN MAKING" has run through three editions in the short period since it first appeared, could not fail to be gratifying to me, and the very indulgent treatment which it has received, both from reviewers and the large circle of friends which my practice in this and other countries has given me, themselves often deeply versed in the subjects dealt with, has been a continual source of pleasure. Their kindness could not, however, blind me to many faults which I was conscious still remained, even after the two partial revisions undertaken before issuing the second and third editions, and it was this consideration which determined me to re-write and very largely re-illustrate the book for a fourth edition.

There was also another consideration which made drastic revision necessary. In the sphere of garden design, as in every other phase of modern life, the spirit of change has made itself felt. New needs have arisen and new practical requirements, the outcome of changing conditions, have to be met. As an instance of this, one has only to quote the coming of the motor-car, which has made it necessary entirely to re-write those portions which deal with drives, entrances, lodges, and carriage courts.

In the arrangement of the book a twofold object has been kept in view. Not only has every effort been made to deal with the subjects discussed in such a manner as to provide interesting consecutive reading to all who love a garden, but also to make each chapter, dealing with a special branch of garden-making, complete in itself, thus giving to the work some of the uses of a book of reference. This latter requirement has necessitated some little repetition, which it is hoped the general reader will pardon. There is no part of the fascinating subject of garden design which has not a direct influence on every other part, and therefore, notwithstanding this confessed redundancy, it has been thought necessary to provide copious indices in order that each branch of the subject may be still further collated.

So much for the rearrangement of the literary matter. The re-illustrating has been undertaken from a different motive. In the first edition I was obliged to rely almost entirely on perspective drawings to help me to visualize the plans illustrated, for, though most of the schemes described were completed so far as the actual work of formation was concerned, the hand of time was necessary to clothe the groundwork thus created with a softening and beautifying veil of greenery.

In the present edition, however, after twenty-five years' practice, I am in a position to illustrate by photographs from my own work nearly all the points dealt with. While this almost exclusive use of examples culled from my own practice may be considered open to the objection that it narrows the outlook, it has the more than counterbalancing advantage that each point shows some problem met in actual practice and successfully solved, a practical gain of the highest importance.

## PREFACE.

Nevertheless I should be the last to claim that any merit which the designs illustrated may show is entirely my own. In almost every case throughout my practice, where the scheme prepared has gone further than the draughting board, I have owed much to the interest and advice, the outcome of an intelligent and discriminating enthusiasm for the work, which have been shown by my clients. It is only by this sympathetic collaboration that the best results can be obtained.

I wish also freely to express my indebtedness to those of my clients who have kindly permitted me to illustrate the work which I have done for them. I also desire to acknowledge the help rendered by my sons, Messrs E. Prentice and John W. Mawson, the former of whom executed most of the additional drawings prepared for this edition, and by many of my office staff, past and present, including Messrs R. Atkinson, D. Cameron, N. and H. Dixon, A. N. W. Hodgson, R. Mattocks, J. R. Radcliffe Mawson, H. Pierce, J. Shaw and J. B. Walker, each of whom has taken a keen and practical interest in the production of the work. The book also owes much to the illustrations by Messrs E. A. Chadwick and E. A. Rowe, particularly the coloured plates.

Lastly I wish to acknowledge the invaluable services rendered by my secretary and former pupil, Mr. James Crossland, who arranged my MS for the printer. Without this collective effort, this edition, produced, as it has been, in the intervals of an extensive and growing practice, would have been impossible.

THOMAS H. MAWSON.

HIGH STREET HOUSE, LANCASTER,  
*October, 1912*



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## EXAMPLES OF GARDEN DESIGN.

### GARDENS OF VARIOUS SIZES

Gardens to semi-detached houses  
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Garden for a suburban residence on Berkhamstead Common.  
A small formal garden at Harrogate  
A large town garden.  
Grounds to a new country seat.  
Grounds to an ancestral domain.

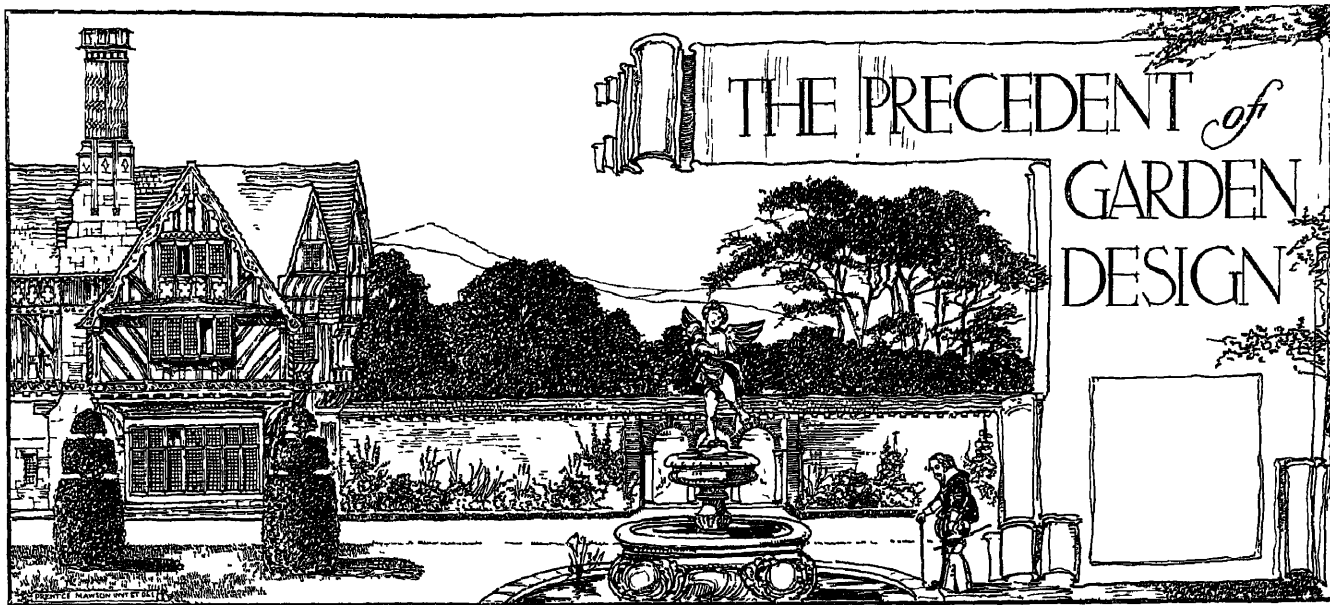
### GARDENS OF EXCEPTIONAL KINDS.

Gardens at Duffryn, near Cardiff.  
A garden on a flat site  
A garden in granite.  
A Perthshire garden.  
A mountain home.  
A garden to a classic Renaissance mansion.  
A hillside garden.  
An old Tudor garden, restored, remodelled, and enlarged.





FIG. I.—END OF THE GLADE, LEWISTON MANOR.



## CHAPTER I.

Before considering the various features which go to the making of a modern garden, it will be necessary to take a rapid survey of the history of the art of Landscape Architecture so far as it has any immediate bearing upon our subject and provides a precedent on which to work.

The existence of gardens may be taken as being coeval with the whole period of man's growth from utter barbarism to present-day civilisation, but for our immediate purpose it is sufficient to deal with the development of the art in our own country. Those who are interested in the archæological aspect of the subject will find it very fully dealt with in Loudon's "Encyclopædia of Gardening"

The evolutionary lines along which advance is made in every art demand that a thorough knowledge of precedent shall form a prominent part of the training of the expert, and although it has been said with truth that landscape architecture suffers, in comparison with other arts, from the paucity of its precedent, this merely means that the planning of the modern garden is a young art capable of much development, and does not excuse a lack of knowledge of all that has been done by masters of the craft in this country during the last four centuries

*Knowledge of precedent necessary.*

With Roman and Norman gardens it is not necessary to deal, further than to say that they probably formed the basis of many medieval monastic pleasaunces. Up to the close of the Tudor period, when the renaissance in all forms of art had taken such a firm hold upon Europe, garden design, except in connection with Royal Palaces, like so many other branches of knowledge, was almost entirely in monastic hands, and most of the existing records of the achievements of the monks are contained in the illustrations with which they embellished their illuminated manuscripts, and incidental references to the beauties of their parterres and pleached alleys in the metrical romances of the period.

*Roman and Norman gardens.*

From the time of Henry II, however, the citizens of London had gardens to their villas, while later, in the reign of Henry V, the gardens at Windsor Castle, which he knew well from his imprisonment there, were thus described by King James I. of Scotland, in "The Quair".—

"Now was there made fast by the touris wall  
A garden faire, and in the corneris set  
Ane herbere grene, with wandis long and small  
Railit about, and so with treis set  
Was all the place and hawthorn hedges knet,  
That lyfe was non, walkyng there for bye  
That myght within scarce any wight espye

So thick the bewis and the leves grene  
Beschudit all the alleyes that there were,  
And myddis every herebere might be sene  
The scharp grene swete jenepere,  
Growing so fair with branches here and there,  
That as it semyt to a lyfe without,  
The bewis spred the herbere all about "



## THE PRECEDENT OF GARDEN DESIGN

### *Monastic gardening.*

Although formality was the rule within the medieval pleasure grounds, natural foliage effects were interspersed with the hedges, "beshaded" alley walks, topiary borders, fountains, flower beds planted in intricate patterns, arbours and flower-covered trellis which formed the greater part of the gardens. The charm of the English garden has ever been its adaptability to the rural and pastoral scenery among which it is placed, and in this respect the monastic builders and designers excelled. They first chose a site of natural beauty, as may be seen in the ruins of Bolton, Fountains, Tintern, or Furness, and then built their abbeys with an instinctive feeling for harmony, making them blend into their surroundings of river, woodland, or fertile pasture in a manner which has never been surpassed. They possessed the well-nigh unique power of adapting the geometric formalities of Gothic architecture to natural scenery, and so, in the formation of their gardens, the natural and the artificial were placed side by side, neither clashing with the other, but each gaining added beauty from the contrast.

The souls of such men could never be cramped within the pleasing neatnesses of the garden, they moved in larger prospects, their admiration and wonder were called forth by the beauties of Nature, the magnanimity of the Creator moved them to higher thoughts and aspirations. They possessed a broad grasp of Nature's excellences, the spirit of which infused alike their missals, their architecture, and their gardens with that sense of a mystical environment which those least responsive to sympathetic surroundings must feel to some extent at least in an old-world pleasaunce.

### *Renaissance gardens.*

As before stated, a new period of garden design commenced during the Tudor period. Up to the commencement of the reign of Henry VIII., gardening, in common with all peaceful arts, had suffered a serious check in the disturbed state of the country during the Wars of the Roses, but the advent of more peaceful times, together with the advance in learning and travel, inevitably resulted in the importation of foreign styles of design, notably the Italian, French, and Dutch, thus infusing fresh life into the art.

There is, however, such a pronounced individual character about our national landscape that it resists the heroic stateliness of the Italian manner, with its too lavish details, and the undue artificiality of the French renaissance, of which Versailles is perhaps the most typical example, as well as the curious conceits of the Dutch styles. All these suit their own countries well enough, but are not at home in England, they, however, held the field in succession from the decadence of the monastic influence until the time when the style which is known as typical English gained the ascendancy.

The Italian style was probably first attempted in this country by Henry VIII. at Nonsuch, and by Wolsey at Hampton Court, though the gardens at the latter place as they now appear were not completed until the reign of William III. The existing maze is, however, Wolsey's work.

All the garden books of the sixteenth century abound in descriptions of Italian features in white marble and Lydian stone copied from the designs of Italian landscape architects of the period; yet there is evidence, in the writings of Doctor Andrew Borde and Thomas Hill that there were souls who yearned for emancipation from the foreign yoke and its artificialities, to breathe their native air in an environment and amidst features which accord with its quiet type of beauty.

These two writers paved the way for Gervase Markham and William Lawson in the next century, both of whom wrote from practical experience. Their works abound in evidences of their innate love of Nature and of their delight in sights and sounds gratifying to the senses, as the following quotation from the writings of the latter will show —

"What more delightsome than an infinite varietie of sweet-smelling flowers? decking with sundry colours the greene mantle of the Earth, the universall Mother of us all, so by them bespotted, so dyed, that all the world cannot sample them, and wherein

is it more fit to admire the Dyer, than imitate his workmanship. Colouring not onely the earth, but decking the ayre, and sweetning every breath and spirit."

It is in these men, and such as they, that the English school of garden design finds its parentage. They wrote for the people of average means rather than for the very wealthy, and they advocated a restrained and ordered formality in the least ambitious gardens. They retained all that was pleasing of the mediæval examples—the high enclosing wall, the clipped hedges, the knots and borders, advocating the inclusion of topiary and straight paths bounding and intersecting short courts of grass, with a fountain, a sundial, or a pyramid at their junction.

They knew how to frame the dainty jewel in its rustic green setting, trim and neat within and in harmony with its rural surroundings without, and even with the azure sky above. They resented the grandiose assumptions of the Italian and other imported styles, and it is to these same healthy traditions we must return in our escape from the vagaries of the landscapists who succeeded them.

The Italian inspiration was fostered under the Renaissance revival by Inigo Jones, who had studied the neo-classic style in Italy, and had given special attention to the productions of Palladio, it was he who erected what is probably the first garden pavilion ever built in England, at Beckett near Farringdon. This revived interest in classic architecture had a salutary effect on the design of both houses and gardens; it demanded that everything be designed with a due sense of proportion and symmetry, and, although widely popular up to the time of the supremacy of the Puritans and the disturbances of the civil war, when the gentler arts were for a time despised, it points to the highest standard in the education of public taste reached up to the close of the last century.

The accession of Charles II. restored garden design to favour. It was he who invited le Notre to this country, whose creations at Versailles and other places were on the largest possible scale. Such gardens as he planned needed an enormous expanse of ground, and were combined with avenues which extended for miles beyond the boundaries of the garden proper. Le Notre taught the English gardeners expansive ideas, which, with exceptions like Badminton, had not in many instances been carried out. The ordinary country gentleman of the time avoided sumptuous effects and remained staunch to the unpretentious delights which had pleased his ancestors. That le Notre could adapt himself to his environment, however, is evident from his work at St. James's and Greenwich Parks.

With William and Mary was introduced the quaintness of the Dutch garden, which later ran riot in extravagant and ridiculous topiary. It was a degenerate art which destroyed the restful simplicity which had hitherto been such a marked characteristic of the national school of garden design. The introduction of these foreign styles had an unsettling effect on English gardening, and when the teased and tortured extravagances fell before the ridicule of Walpole, Pope, and Addison, a new fashion was evolved which usurped to itself the title of the "Natural Style," though, in spite of all that it professed, it was, in a different way, as much the subject of rules and as formal as anything which had gone before. As we see in the writings of Markham and Lawson, the formality of the old school was more honest and logical and more sincere in its genuine love of Nature.

*Dutch  
gardening  
and its  
abuse.*

From this time up to the later part of the nineteenth century, garden design, considered as a decorative art, could not be said to have made any decided advance. Even the wealth of material which had been evolved or introduced in the interval, and which should have enlarged the scope of the art, merely resulted in obscuring broad principles under a mass of small detail, and in giving free rein to those lovers of the curious and exotic who, by converting the garden into a floral and arboricultural museum, destroyed its restfulness, and placed it entirely out of sympathy with the

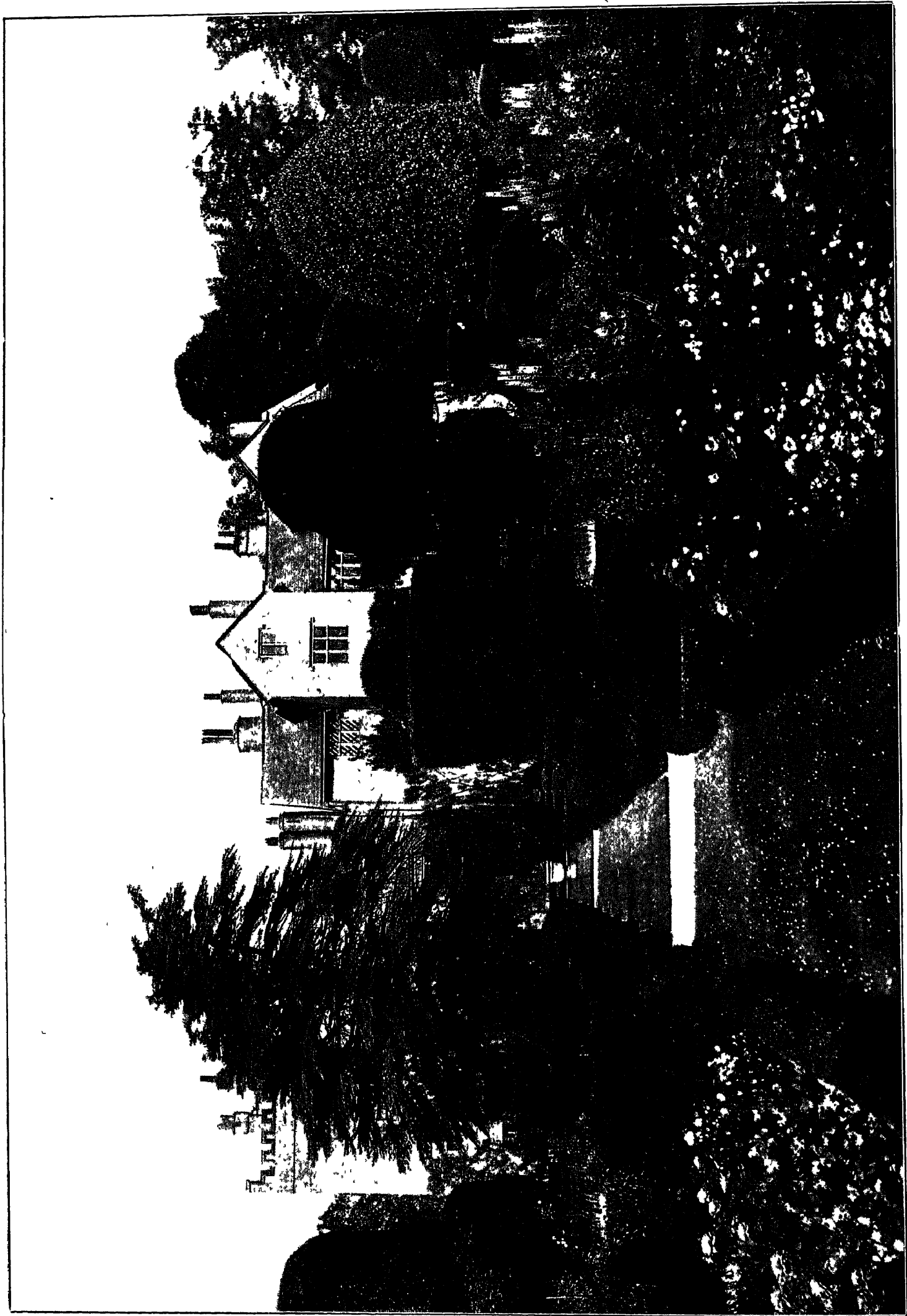


FIG. 2.—LEVENS HALL, VIEW ALONG THE MAIN WALK

## THE PRECEDENT OF GARDEN DESIGN.

surrounding rural scenery. If we study the principles upon which the medieval and renaissance gardeners worked, and contrast them with the practice of the garden designers of the last century, we find that the former subordinated every detail to principle, whereas the latter considered sundry points of detail to the exclusion of any regard for the scheme as a whole and of the relation the parts should bear to it

The men of the old school were idealists and expressed their ideas in a straightforward, common-sense manner, basing everything on a balanced plan and using ornament to emphasize it. They laid out a garden in so many plots, with hedges or trellis round each, or a tree was planted at each corner to give point and expression to the shape. We have to thank these old designers for many stately avenues, grand parterres, quiet alleys, shady walks, sparkling fountains, quaint hedges, architectural ponds and broad lawns, wedded together in such a masterly way as to impress the spectator with the grandeur and transparent honesty of the whole scheme. Their restrained and harmonious details, so admirably adapted to the purpose they had to serve, marked these early designs as the work of men of the widest sympathy with garden craft. The view of Levens Hall (Ill No 2) suggests a strong Dutch influence, a style adapted to gardens on a level site

"Landscape Gardeners," as the garden designers of the late Georgian and Victorian periods called themselves, may, for want of a more correct expression, be called realists, their theory being that the perfection of the art of garden making consisted in pedantic imitation of Nature. The founder of this school was "Capability Brown," a man who was, for a long time, regarded as a genius. Living in a period when almost every branch of art and literature was in the throes of change, there is no wonder that he turned his back upon the old examples of garden design and espoused the promised novelty of what he and his followers conceived to be a new discovery, which was briefly that every bit of pastoral scenery was of itself a garden fair, to be reproduced wherever the designer willed. Brown and his admirers thought that the old pleasaunces possessed greater possibilities than the original designer had realised, so down came the terrace walls, the mattock was laid to the roots of the box and yew hedges, and the pleached alleys were demolished. Remonstrance was useless, the tide had set in, onward it swept in ruthless disregard of the labours of a past generation and recking little of the sanctifying hand of time. Nature, they proclaimed, must henceforth supplant idealism, and the crudest effects perpetrated in her name be placed on a higher pedestal than that ordered symmetry and rhythm and balanced proportion which is the soul of design

*Eighteenth  
Century  
Gardening.*

The old school was doubtless decadent, and some corrective to the vagaries and appalling insipidities into which it had fallen was certainly required, but such a revolutionary change as that brought about by the garden designers of the eighteenth and the beginning of the last century is to be deplored. The ability of these men was measured by the amount of deception they were able to perpetrate, for their one claim to fame consisted in imitation and not in invention. With such ideas it is not surprising that sham castellated ruins and other absurdities came to be considered as necessary adjuncts of garden scenery. Ignorance and blind infatuation must altogether have possessed these innovators, or they would have seen that the old designers had learned many of the secrets of Nature which they seldom caught.

It is refreshing to find that, among all this turmoil of propaganda of new ideas,—this wanton destruction of beautiful work for the sake of an upstart fashion,—there were men who still clung to the old principles and who dared to risk adverse criticism by planting avenues of one variety of tree, which fortunately were never discovered by the "garden improvers."

In their own way, too, and without arrogating to themselves the control of Nature,



FIG. 3.—SCOTCH FIRS ON BRATHAY CRAGS, WINDERMERE.



FIG 4.—SCOTCH FIRS ON BRATHAY CRAGS, WINDERMERE

## THE PRECEDENT OF GARDEN DESIGN.

the old-time designers secured those unlooked-for surprises and cosy retreats in which she abounds, whereas the men who claimed the sole possession of her secrets perpetrated the saddest kind of formalism, as may be seen to-day in the suburbs of all towns and especially in their planting. The conscious effort to avoid a straight line is particularly wearying, and there is a satiating sameness in their methods of arranging deciduous trees and pines, two or three of the former to one of the latter.

Thus were the two schools of garden makers opposed to one another—the first relying on design for power of expression and the latter on their skill in imitating Nature. Had Brown and his followers been content with imitation, they would have simply perpetrated so many absurd and expensive frauds, but this did not meet the whole of their misguided practice. Walks and drives and many other things were required which could not be made to imitate Nature, and, as stated elsewhere, this led to many of the garden designer's most promising media being treated as unfortunate necessities. For the solution of the problem thus presented, the rule was invented that "Nature abhors a straight line," for these self-styled followers of Nature had no eyes to see the silver gleam across rippled water, the straight lines in a sunset sky or the symmetry of the towering pine. The indiscriminate application of this rule to roads, lawns and other features could not but produce disastrous results. Drives were made to wriggle across flat expanses where every other consideration would dictate a straight line, and lawns also which were flat or only gently undulating had to be altered to imitate "Nature in her best moods," and so "undulating" became a stock accomplishment.

*Two  
Opposed  
Schools of  
Garden  
Design.*

In dealing with the open landscape of the home park, the work of this school is often commendable for its breadth. Theirs was a great age for the planter. Although they demolished avenues which, they said, arbitrarily parcelled the landscape off into sections and prevented breadth of effect, they largely atoned for this by emphasizing the natural features, by crowning the heights and planting their slopes with homely native trees, and clearing timber from the valleys so that the hills might rise still higher and the valleys appear deeper. To them are due many of the magnificent backgrounds of ancient trees against which our ancestral homes nestle. In the view of Brathay Rocks, Windermere, planted with Scotch firs (Ill. Nos. 3 & 4), we have one of those characteristic features upon which the old landscapists would have seized.

After Brown came Repton, who, while he professed to be a follower of Brown, was unquestionably far ahead of his master in intelligence and power to grasp the importance of the office of design. In many instances he refused to destroy old gardens, and in others he readjusted, in a consummate manner, the vagaries of his predecessor. Repton knew, intuitively, what was consistent with, and even a necessary accompaniment of architecture. Whereas the old garden designers favoured a formal scheme and the followers of Brown an entirely natural garden, Repton recommended formality near the house, merging into the natural, attaching the house by imperceptible gradations to the landscape. He took a further step towards idealism by making, for each scheme, a number of sketches shewing how the place would appear when the trees had attained a certain growth, so that, while the results of his methods were not demonstrable to the same extent as in the designs for a geometrical garden, which can be projected in planes by perspective drawing, there was a degree of probability in his proposals.

*Repton.*

In his "Sketches and Hints," Repton enunciated ten principles, the outcome of his experience, which shew the responsible position he took in respect to garden design and estate improvement. They are of such general interest that we make no excuse for printing them *in extenso* :—

- No. 1. "There is no error more prevalent in modern gardening, or more frequently carried to excess, than taking away hedges to unite many small fields into an extensive and naked lawn, before plantations are made to give it the

## THE PRECEDENT OF GARDEN DESIGN.

- appearance of a park, and where ground is sub-divided by sunk fences, imaginary freedom is dearly purchased at the expense of actual confinement."
- No 2 "The baldness and nakedness round the house is part of the same mistaken system, of concealing fences to gain extent. A palace, or even an elegant villa, in a grass field, appears to me incongruous, yet I have seldom had sufficient influence to correct this common error."
- No 3. "An approach which does not evidently lead to the house, or which does not take the shortest course, cannot be right. (This rule must be taken with certain limitations. The shortest road across a lawn to a house will seldom be found graceful and often vulgar. A road bordered by trees in the form of an avenue, may be straight without being vulgar, and grandeur, not grace or elegance, is the expression expected to be produced)
- No. 4. "A poor man's cottage, divided into what is called a *pair of lodges* is a mistaken expedient to mark importance in the entrance to a Park.
- No 5. "The entrance gate should not be visible from the mansion, unless it opens into a court-yard"
- No 6. "The plantation surrounding a place, called a *Belt*, I have never advised; nor have I ever willingly marked a drive, or walk, completely round the verge of a park, except in small villas, where a dry path round a person's own field is always more interesting to him than any other walk"
- No. 7. "Small plantations of trees, surrounded by a fence, are the best expedients to form groups, because trees planted singly seldom grow well; neglect of thinning and removing the fence, has produced that ugly deformity called a *Clump*."
- No. 8. "Water on an eminence, or on the side of a hill, is among the most common errors of Mr. Brown's followers: in numerous instances I have been allowed to remove such pieces of water from the hills to the valleys; but in many my advice has not prevailed.
- No. 9. "Deception may be allowable in imitating the works of NATURE, thus artificial rivers, lakes, and rock scenery, can only be great by deception, and the mind acquiesces in the fraud, after it is detected: but in works of ART every trick ought to be avoided. Sham churches, sham ruins, sham bridges, and everything which appears what it is not, disgusts when the trick is discovered."
- No. 10. "In buildings of every kind the *character* should be strictly observed. No incongruous mixture can be justified To add Grecian to Gothic, or Gothic to Grecian, is equally absurd; and a sharp pointed arch to a garden gate or a dairy window, however frequently it occurs, is not less offensive than Grecian Architecture, in which the standard rules of relative proportions are neglected or violated."
- "The perfection of landscape gardening consists in the fullest attention to these principles—*Utility*, *Proportion*, and *Unity*, or harmony of parts to the whole."

Brown and Repton had a host of imitators who followed one another in a descending scale of puerile imitation, until the whole art of garden design was reduced to the arrangement of the four factors of clumps of trees, belts of planting, single trees, and "undulations" accompanied by sheets of water arranged according to one unvarying stock design which differed only so far as the size of the estate made absolutely necessary.

Speaking of this period, Loudon says.—"The professor required no further examination of the ground than what was necessary to take the levels for forming a piece of water, which water uniformly assumed one shape or character, and differed no more

## THE PRECEDENT OF GARDEN DESIGN.

in different situations than did the belt or the clump. So entirely mechanical had the art become, that one might have guessed what would have been the plan given by the professor before he was called in; and Price actually gives an instance in which this was done.

This state of affairs led to the letting loose of a flood of argument as to what were the principles on which gardens should be designed and whence they should obtain their artistic precedent. Repton, Knight and Price were conspicuous in the fray both from the volume of their writings and the weight of their arguments, and the subject even became the motive of a novel and the theme of poetry.

The upshot was that the whole art fell more or less into disuse for a time and only entirely revived with the advent of Sir Joseph Paxton, whose excellence as a natural genius in the science of constructional engineering, coupled with his experience as a practical gardener, were considered sufficient qualifications for work which, above all things, demands a most catholic art training.

*Sir Joseph Paxton and his contemporaries.*

Nevertheless his work, together with that of his contemporaries, Edward Milner, Robert Marnock, Edward Thomas and Edward Kemp, was not without very considerable merit and a great advance on that which preceded it. It stands out in bold relief against that of the host of nurserymen and garden contractors who, encouraged by negligent architects and indifferent clients, added to their legitimate occupation what they were pleased to call "Landscape Gardening," which, whatever the term might convey to the customer, did not suggest to the practitioner any study or knowledge of the arts.

It is not surprising therefore that, towards the end of the last century, the whole art was viewed, by persons of education and taste, more in a spirit of toleration than with any enthusiasm for its development, and that, between the architect for the house and the planner of its surroundings, there should grow up a mutual contempt and misunderstanding.

Kemp, by his writings and work, alone did much to heal this breach. He published, under the title of "How to lay out a Garden," a most excellent book which ran through three editions. The following quotation from the preface to the third edition of this work shews how nearly Kemp approached, at least in appreciation, to the architect's outlook on garden design:—

*Kemp.*

"It is much to be regretted that architects and landscape gardeners do not more usually work together in complete unison from the very commencement of any undertaking in which they are jointly consulted; and he who would produce a work in which the relation of the two arts to each other, and the elements of garden architecture and of architectural gardening, should be skilfully handled and tastefully illustrated, would deserve the thanks of the entire art-loving community."

The undoubted revival which has followed the mistakes of the early Victorian era in all forms of art is having its influence on Landscape Architecture. The dictum that every common thing about our homes should be so designed as to be beautiful without impairing its usefulness, while it has inevitably led to some of the extravagances of the "Art nuovo" cult, has had an unbounded influence for good, and the recognition of the equally obvious truism that all art media owe their artistic effect to juxtaposition of harmony or contrast has led us to see that, between the designer of the house and the architect of its setting, there must be the closest artistic sympathy and mutual appreciation if the result of the work is to be successful.

*The modern revival in garden design.*

This close sympathetic connection can only be realized when the education of the votaries of these two departments of art is based upon a broadened curriculum which will ensure each gaining an insight in the round into the æsthetic factors dominating the sphere of the other.



## THE PRECEDENT OF GARDEN DESIGN.

We now stand at the parting of the ways, and it remains to be seen whether the landscape architect on the one hand will co-operate with the domestic architect, and whether the latter will work in generous harmony with him; or whether the houses and gardens of the future are, by their aloofness from one another and want of æsthetic connection, to shew evidences of that lack of appreciation on the part of each for the work of the other which has marked the domestic architecture of the last century. Eventually, but not before we are prepared to devote a longer period to academic studies, these two callings, so necessary to each other and so closely interwoven at every point, may merge into one.

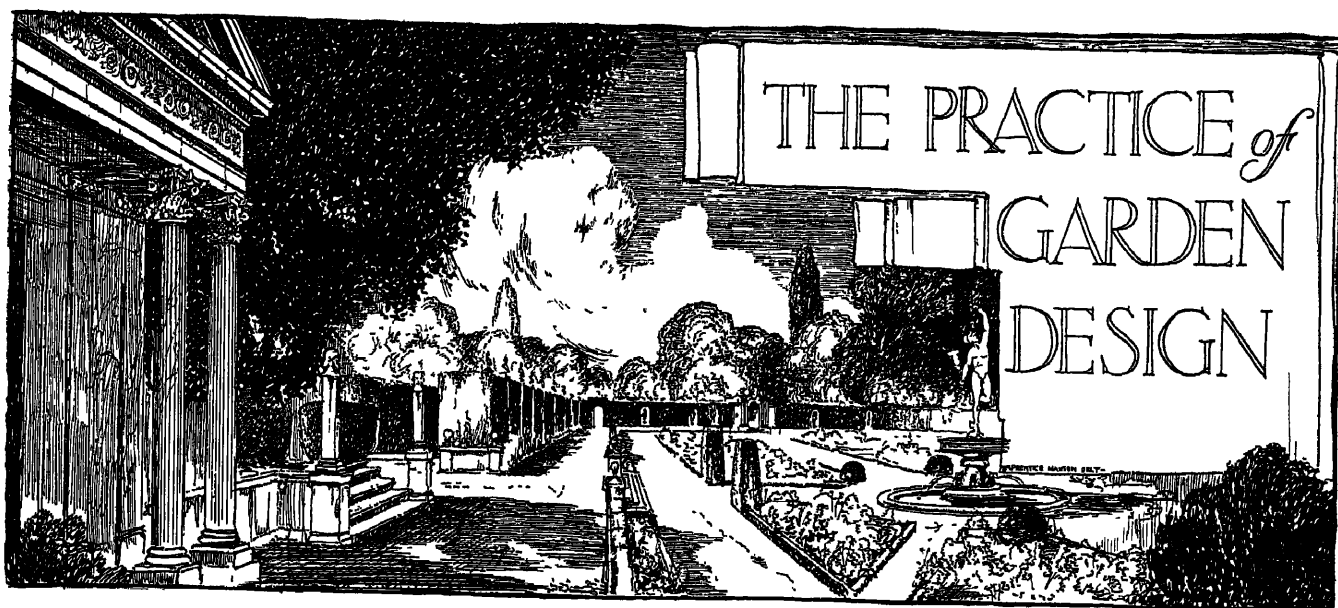


PRIVATE CHAPEL IN GARDENS AT LEWISTON MANOR, DORSET





FIG. 5.—WIGHTWICK MANOR, WOLVERHAMPTON.



## CHAPTER II

The foregoing brief sketch of the history of garden making, so far as it relates to Great Britain, naturally raises the question—What should be the aim and position of the ART AND CRAFT OF GARDEN MAKING at the present day?

To understand thoroughly the bearings of this question, we must first of all realize that garden design, or the architecture of gardens, is only a part of a much greater subject of infinitely wider application, viz, the profession of Landscape Architecture. If we examine the aims, scope and intention of this art, we shall by that means most easily arrive at the answer to our question.

*The term  
"Landscape  
Architec-  
ture."*

Before proceeding to do this, however, we would explain that the term "Landscape Architecture" is not of our choosing.\* Its unfortunate etymological significance, which would seem to suggest puerile interference with natural scenery or, worse still, the attempt to reproduce Nature's glories on a mean scale in competition with artificial surroundings, has undoubtedly helped to obscure the real purpose of the art, and to reduce its practice to the debased level at which we find it in the average town garden.

Shortly defined, Landscape Architecture is the art of co-relating the component parts of a scheme over large areas. It aims at the rhythmic, balanced, and co-ordinated relation of all the units, utilitarian or decorative, within the area under treatment. It aims at producing a collective effect from the scattered units, whether they be ecclesiastical, public, or domestic buildings, trees, greensward, roadway or flower beds, giving everything its proper place in relation to the whole, and marking fittingly by their arrangement the relative importance of each object.

Architecture, horticulture, engineering, sociology and all the other factors which go to the making of a city or domain, are parts of one great art or science, and this is Landscape Architecture. In another sense they are not, for it is impossible to conceive of an art without an artist or art-craftsman capable of grasping even the technicalities of his art, and the whole of these subjects could not be undertaken by one man within the ordinary span of existence.

As an art or science comes to be more fully known and the volume of its precedent increases, its adherents find it necessary to specialize and devote themselves to one portion of the subject, leaving the development of other branches to their confreres, each specialist sharing in the advance made by others and contributing to the general progress of the science as a whole.

*Specializa-  
tion.*

\* "Topographical Architecture" would probably be a term less liable to be misunderstood.

## THE PRACTICE OF GARDEN DESIGN.

This is particularly so in the science of those arts which minister more or less directly to the conveniences and necessities of modern life with its ever-growing complexities and luxuries. It is not surprising therefore that, in the creation of that portion of our material environment which we call architecture, this specialistic tendency should be particularly marked, for in recent years the whole art has advanced in such a manner that to keep abreast of all its manifold activities is an impossible task for the individual student.

Unfortunately, there is sometimes the danger that, in this inevitable subdivision of labour, there may be a neglect of the art in the elaboration of its parts. Thus, in architecture, which depends for its success more than any other art upon correct staging, we are rapidly awakening to the fact that, in the study of individual buildings, we have neglected the greater and broader subject of Landscape Architecture, without which, effort spent on the design of detached units can never have its full fruition.

We have looked upon each unit in the composition too much as an entity in itself, and too little as a part of a larger scheme. Not until we can conceive of the individual creation in its dual capacity, first as a fitting subject for the exercise of creative design in itself, and secondly as but a unit in a much broader scheme which, taking it as it stands, as *un fait accompli*, will deal with it in its relationship to many varying factors, can the architecture of this country reach its highest development.

*The Scheme  
as a unit.*

This is where architecture, and especially domestic architecture, must begin—this is where the Landscape Architect must find his inspiration—and it is because of an awakening consciousness to this great truth that we find growing up a school of designers who are making the planning and design of gardens and the staging of architecture their special province.

But, it may be objected, it is impossible to conceive of any building apart from its site and therefore design and staging cannot be dealt with separately by the domestic and landscape architects. While it is true that environment will influence the least responsive designer so far as the design of his particular unit is concerned, it is only the influence of immediate surroundings on the unit, and that very partially, which he realizes; the greater possibilities contained in the opposite view, the relation of the unit to its surroundings, are often entirely neglected.

That the need of a master-hand to correlate and co-ordinate scattered units should ever have been lost sight of, is due, not so much to egotism on the part of those in charge of the various sections of the subject, as to the lack of adequate representation from which Landscape Architecture has suffered; the lack of a strong man to worthily uphold its traditions. The process of decadence has been traced, in the last chapter, from the days of "Capability Brown," who, by turning his back on creative design to caricature Nature, destroyed the very root-foundations of his art, and thus opened the way for a host of followers who, knowing nothing of creative design and caring less, conceived the whole subject to be a happy field for *laissez-faire*, in which there can be no sense of constructive beauty and, at best, but an attempt to instruct Nature in her own unapproachable sphere.

It is thus that the term "Landscape Architecture," as usually understood, conveys nothing more to the mind than a slight and partial infusion of colour, neatness and prettiness, a smoothed-out, drilled and marshalled effect, superimposed as a veneer over the area treated.

It is not, however, to the discredit of this, or of any other branch of art, that its essential elements are not obvious, or that, as a science, it needs study for its appreciation, and the very fact that it is misunderstood or even despised by the ordinary person only attests its reality and intrinsic worth. Though he applauds when a noble result is attained, he can never understand the designer's intentions or share his vision. Again,



FIG. 6.—RENAISSANCE GARDEN AT MENTMORE.

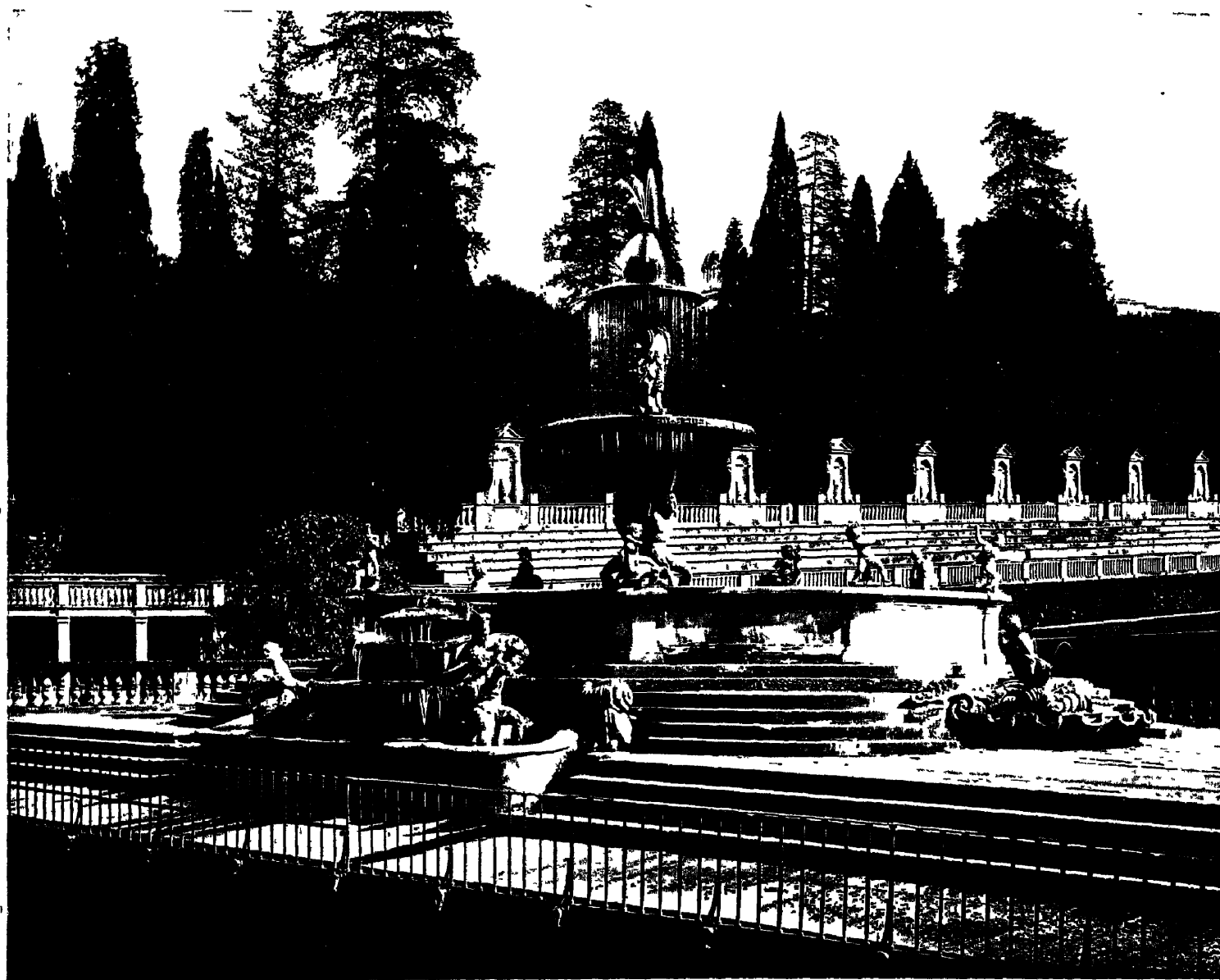


FIG. 7.—ITALIAN GARDEN COMPOSITION, BOBOLI GARDENS, FLORENCE.

## THE PRACTICE OF GARDEN DESIGN.

while he is content with those adornments which are curious or novel, or have the sanction of fashion, viewing them as isolated features and never as a part of an artistic composition, the intelligent and educated observer must have, first of all, a clear impression of the fundamental principles underlying the art, and resulting in a self-contained and co-ordinated entity embracing within itself all the necessary parts of the scheme, giving to each its proper place and necessary emphasis as a part of a well-balanced whole.

Far too long has the whole art been the sport of changing fashion and uninformed public taste, and the prey of a spurious dilettantism which, by its vagaries, its sham runs, its miniature alps and impossible vistas, has reduced it to utter absurdity.

With the domestic architect on the one hand viewing his creation as an isolated unit to the exclusion of everything else, the practical gardener on the other trampling underfoot every canon of art in his eager desire for perfect specimens of exotic plants, and the engineer whose sole idea of beauty is superadded adornment, things have fallen to a very low ebb and, unless the present awakening to the need of a collective effort in design is adequately responded to, the contemporary school of landscape architecture will have only itself to blame if its claims are denied and its work and status taken from it and bestowed upon others who will more worthily uphold its traditions.

### *The Renaissance of the Art*

How then is the renaissance of the art to be effected? I think that the best way to answer this important question is to consider, very shortly, first, the training and requirements of the landscape architect; and, secondly, the ideal which should inspire him throughout his life-work. The former will give us some insight into his practical, and the latter into his artistic equipment.

### *The training of the Landscape Architect.*

The first of these questions, if fully considered, would involve an examination of the whole syllabus of the student's training in landscape architecture; but, although this is a subject of great interest, which, in its application to the design of cities, is receiving experimental treatment at Liverpool university at the present time, it is impossible, in the space available, to do more than to indicate a few of the principal subjects which it will be necessary for him to master. First of all must come a general training, which shall be framed with the intention of inculcating that catholicity of ideas, power of concentration, and love of orderly progression and logical sequence which is best attained by an all-round classical education, the fruits of which find their use and expression in every walk of life, and which will be particularly appreciated in work which consists primarily in the welding of component parts into a balanced whole. On this foundation must be built a knowledge in the round of, and sympathetic interest in, not only every branch of architecture, but also in arboriculture, forestry, engineering and many other most divergent sciences which all go towards the making of a garden, a park, or a city or the embellishment of their several parts.

It is not of course necessary, or indeed possible, that the landscape architect should possess such an intimate knowledge of the minutiae of all these professions that he could dispense with the services of experts. His task must be very largely that of an arbiter, who by a broad-minded sympathy for the aspirations of each, born of knowledge of the rules and ideals of his profession, is able to prevent that multiplication of little aims and disjointed efforts which everywhere abound.

Superimposed on this academic training must be a marked natural versatility which will enable him to appreciate the efforts and the points of view of all the various designers or craftsmen of the component parts of the scheme, and so to give to each its proper place and correct emphasis. It thus follows that he must possess the judicial mind with the soul of the artist, a rare combination, it is true, but a necessary one if the confidence of his fellow-workers is to be obtained and held.

Even this is not enough, for the perfectly equipped landscape architect will not only have to deal with fellow-workmen, each trained to see and appreciate that which is good

## THE PRACTICE OF GARDEN DESIGN.

from his own point of view, but also with private clients or public bodies to whom his method of presenting them by geometric projection are more or less unintelligible, and his technical terms an unknown language. Here is his greatest task, for the writer's life-long experience has proved that there is nothing more difficult for the lay mind to grasp than the ultimate effect of a comprehensive scheme. Indeed this could hardly be otherwise in this country, where our habit of "muddling through" is almost a national characteristic. More than once have I been startlingly reminded of this when dealing with a client of Latin and particularly French nationality or extraction, and have noted the greatly increased appreciation for and grasp of the ultimate result as a whole, which such persons have shown, and this without for a moment losing sight of the necessity for the careful consideration of minutiae. We have only to compare French and English cities to note the continuity of effort on the one hand and its frequent absence on the other, to realize this difference of outlook.

*Continuity  
of effort.*



FIG. 8.—THE GARDEN AT VERSAILLES.

The classic examples of garden design in this country are many, and undoubtedly incomparably beautiful, nevertheless it is unfortunately true that the garden, as a means of serious art expression, has never presented itself to the minds of most people in this country. Notwithstanding the grandeur of the old Italian pleasaunces, the stately magnificence of the gardens of Paris, and the more rural beauty of the English domain, and, more incredible still, notwithstanding the inexhaustible themes for the painters, poets and novelists, the average Englishman would seem to be unable to see anything more in it than a place where flowers or trees may be grown for their intrinsic beauty alone, and quite apart from any collective effect.

*The garden  
as a means  
of serious  
art  
expression.*

Even if the isolated features have individual promise and interest, and their



## THE PRACTICE OF GARDEN DESIGN.

disposition and relative functions in relation to one another are carefully explained by precept and illustration, the ultimate effect is very rarely grasped until the garden is an accomplished fact, even then, the introduction of some much-prized piece of ornament or equipment which clashes with the whole, shows how little the "motif" of the design has been realized.

So much for the training of the landscape architect, now for the ideals which should influence his work

Having already spoken of the broad sympathy with the aims and aspirations of others which should be dominant, in addition to this, his work must be characterized by his own personal art vision. This is accomplished by the masterly application of the three factors which, for want of more expressive terms, may be designated realism, romanticism and symbolism; the latter is sometimes called mysticism.

*The ideals  
of the  
Landscape  
Architect.*

What is meant by this, may be illustrated by a concrete instance. Here is a statue of Pan surrounded by his dancing dryads. Looking at it, the intensely practical man, so dear to the heart of the average Briton, says that, if it possesses the quality of uniqueness, it is the most important adornment in the garden. He esteems the work solely according to its rarity, and consequently its commercial value. The romanticist, on the other hand, who is seen in the sculptor or modeller, judges it according to its artistry, silhouette, mass or detail, and its relation to its setting. He confines himself more or less, to its visual merit; this to him, is its appeal. The triumph of the symbolist or mystic is, however, complete. Looking at the statue, he sees things to others invisible, hears, in the far-off pine-wood, the music of Pan's pipes at mid-day. All else is secondary, and he yearns, through the medium of his art, to translate his vision to the understanding of others.

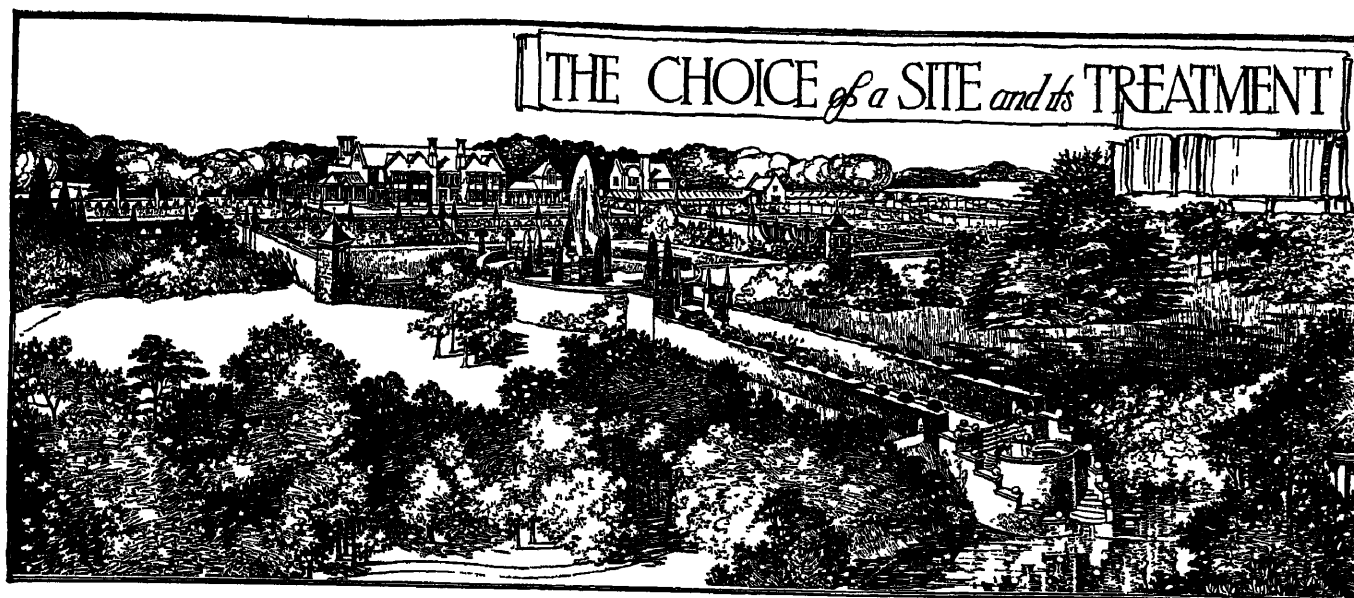
This is his province, to infuse the drab necessities of existence with an inherent beauty, to divert the common crowd from low ideals by the elevation of their environment, and to cause those who never really loved art, and who resent it as a departure from their own level of mediocrity, to rise to more worthy aims. Filled with a right conception of the dignity of his art, and fired with a great desire for its advancement, he expresses out of his own soul his passion, and persuades his audience to see what he chooses by materializing his dream, using, as a medium to this end, architecture, verdure, flowers, and the other materials of his craft, weaving the whole into one rhythmic, harmonious composition.

Thus may be discerned what is the responsibility which rests upon the landscape architect if he is to maintain worthily the great traditions handed down to him by the garden makers of the past, and adequately respond to the requirements of a more discerning public. It is in this sense that the practical details of garden design are approached in the subsequent chapters, wherein is shewn how they may be rescued from the pettiness and meannesses which have done so much to degrade the art in recent years, and how landscape architecture, as practised in this country, may be raised to its proper place as mistress of the liberal professions.





FIG. 9.—WYCH CROSS, SUSSEX, DISTANT VIEW.



### CHAPTER III

In dealing with the choice of a site for a new domain and the endeavour to develop it on the best possible lines both artistically and practically, we cannot do better than follow the prospective owner of a typical country residence through the whole process of choice and development, storing lessons for future application.

The choice of a locality in which to build is naturally the first consideration, though in most instances there are factors connected with the business and health of the owner which narrow this question considerably; in any case it is beyond the scope of this work to do more than to touch upon the climatic and hygienic advantages and disadvantages of a residence in the different portions of our island.

*Choice of a locality.*

There are great differences in climate and atmosphere in various parts of Britain, and even of the sea-board. The west coast, swept by the Atlantic breezes, tempered by the moist warm air of the Gulf Stream, is more genial, if less bracing, than the east coast, which is swept by the dry winds that cross the German Ocean, and, from the same cause, the rainfall is much greater in the west than in the east. This is, however, to some extent compensated for by the mountainous surface and impervious subsoil on the west coast, which cause the water to flow away quickly from the higher portions of the land. The broken outline of the north-western coast again speaks of the violence of the stern "nor'-westers," though the resulting rugged picturesqueness may be sufficient recompense in the minds of some persons. The south coast, if we except the stormy extremities of Kent and Cornwall, provides throughout a genial and equable winter resort, though undoubtedly somewhat relaxing in the summer.

Other factors, however, modify or even reverse these primary climatic and atmospheric distinctions. Thus the lie of the land, its general contours, its altitude with reference to its surroundings, the dispositions of surrounding hills or mountains, the proximity and placing of woods and forests, the presence of a large lake, all have a very marked influence.

It cannot be too clearly pointed out that mere altitude, reckoned, say, above the sea level, is of no value whatever. What is important is the height in comparison with its surroundings. For instance, a site which is five hundred feet above sea level, but in the bottom of a mountain valley where the sun rarely penetrates, may be depressing, whilst another on the sea coast, which is only twenty feet above high-water mark, may be bracing in the extreme. The same factors regulate the frequency of or immunity from fog. Mists always tend to hang in a valley, even though a thousand feet above sea level, which can be demonstrated by visiting a hilly district in foggy weather and climbing the

*Altitude.*

## THE CHOICE OF A SITE AND ITS TREATMENT.

highest hill, when the top will often be found to be bathed in sunshine and the fog to lie at the beholder's feet like an inland sea, the tops of neighbouring hills peering above it like so many islands. On the other hand, to choose a site at an exceptional altitude on a mountain side might result in its being submerged in low-lying cloud almost every morning and evening. The site which will be found to be freest from such visitations is one on a southern slope which forms no part of a natural basin.

### *Subsoil.*

Another important factor which should be considered by those persons fortunate enough to be able to choose a site over a large area, is the nature of the subsoil. One that is pervious, such as those composed of gravel, sand or marl, is healthier than one which tends to become waterlogged in wet weather, or is composed of stiff retentive clay. The porous soil, however, may become a source of danger through the facility with which poisonous matter from stables, cesspools or defective drains, can percolate through it and contaminate the water, or give off noxious gases into living rooms, unless this is guarded against.

It has been maintained that a loamy clay subsoil is preferable to a sandy or gravelly one, as the former is a slower conductor of heat, thereby maintaining a more even temperature; but this is not so, for every sudden change of temperature will be followed by dampness in the stratum of air next to the ground. It is also said that, in fully inhabited districts where efficient drainage is enforced, no inconvenience need arise from building on clay if the foundations are overspread with concrete and the walls damp-proofed. The dangers of a water-retaining soil may be minimised and even almost negated by such means, nevertheless "prevention is better than cure," and where possible, health and comfort will be always best served by the choice of an elevated site on a porous subsoil, which lessens the tendency to such diseases as tuberculosis, asthma, rheumatism, ague and kindred ills fostered by dampness.

This class of site has also distinct advantages when we come to make the garden. Not only is a light soil cheaper and easier to move in levelling the terraces and lawns, but, although much can be done to improve a very heavy soil, apart from the rose garden, one which is fairly light is preferable, especially for lawns. The paths, too, on clay land are apt to be greasy and disagreeable in wet weather, and the soil beds either sticky or baked like a brick.

The elevated site too has its advantages from the gardener's point of view, not only because it is more sunny, but being naturally drier, plants will not be so easily affected by frost, which attacks newly planted shrubs in the bottom of a valley long before those higher up are affected. Incredible though it may appear, many varieties of trees, shrubs and plants luxuriate in an elevated position which would not grow on lower ground.

There remain the questions of water supply and sewage disposal, the former being a matter which, however, the author has more than once found to have been totally neglected until the site has been purchased and even built upon.

Having settled these absolutely essential hygienic requirements, there are many other questions arising out of the prospective owner's business or social relations, his personal preferences and those individual necessities which, although unexplainable on medical grounds, make surroundings which are healthy for most people quite altogether unsuitable to others.

### *Business and social requirements.*

In the majority of instances proprietors are compelled to locate themselves within reach of their place of business, yet where the family will obtain all the advantages of rural surroundings and pure air, and on a site large enough to allow indulgence in gardening, arboriculture, model farming, or other rural pursuits, such as can be pursued within the limits of a few acres of land. Another desideratum is that an efficient shopping centre such as that provided by a county or market town be within easy reach.

## THE CHOICE OF A SITE AND ITS TREATMENT.

This question of accessibility has been greatly altered by the advent of the motor car. Whereas, formerly, a mile or a mile and a half was about the limit which the business man was prepared to go morning and evening in all weathers to and from the station, nowadays there are hundreds of instances where the same men travel from five to ten miles, and that with as little trouble. This, coupled with the steady and continuous improvement which is going on in the train services for business men, has opened up an extended radius of residence and has saved many an old Elizabethan farm or manor house or obsolete coaching inn from destruction and decay.

*Accessi-  
bility.*

In other cases, the proximity of one of the large hunts, a yachting centre, a renowned golf course or other facilities for country sports, may take the place of business requirements.

Differing personal preferences are often bewildering to the architect. It is quite exceptional for two persons to have similar ideas as to the value of a site, the conditions which are desirable to one being often wholly objectionable to another. One person prefers to look on his neighbour's house, and feels more sociable thereby, while another prefers to be so entirely isolated that even his estate cottages must be out of sight and sound. Most people are, however, agreed on the desirability of pure air and a sunny situation; the best from the latter point of view being one which slopes towards a point a little east of south, while the worst is that which slopes towards the north-west. In nearly every instance extensive or beautiful views are courted, and the presence of well-grown timber or hedge rows interspersed with young timber trees is desirable. A house on a treeless field, especially on an elevated site, is unsociable; whereas a few well established trees serve, in a way, to link the present with the past and blend the new architecture with the landscape.

*Personal  
Preferences.*

When all the factors discussed, hygienic, commercial, social, artistic, geographical, and personal, have been applied to all available sites of about the area required, it will generally be found that the choice is a narrow one, and probably the question will largely decide itself by the pre-eminent suitability of one particular plot. Generally however when the best has been done, the result will be more or less a compromise.

The owner having made up his mind, it remains to demonstrate how the site should be treated. We have taken from the ordnance map the parcel of ground shewn in illustration No. 10. In extent, shape and contours, it is suitable for a moderate-sized residence, and typical of the class of site discussed, but at the same time distinctive enough in its general characteristics to prevent its being handled in any stereotyped manner. The site, nine acres in extent, is such as might be found in most hilly districts of Westmorland, the county in which it is situated. It has been slightly altered to conceal its actual identity, but the alterations are not such as in any way to affect its use for the present purpose.

*A typical  
site.*

A farmstead with outbuildings formerly occupied a level site indicated on the plan in the largest of the six fields which, with the two plantations of well-grown timber and the two coppices to the south and east, make up the nine acres. All are fenced with the rough stone walls characteristic of the district. The appearance of the plantations suggests that they are the remains of a general clearing; the whole, with the exception of a portion of the lower field, being formerly covered with timber or coppice wood. The general fall of the land is to the south-east, and a tumbling stream enters the ground near the north-west corner and passes to the south through the lower fields and out at the south-east. There are indications that a portion of the lower field was under water, being now drained by the lowered bed of the stream; but the ground is still swampy.

*Its aspect.*

Some idea of the levels and contours of the ground may be obtained by a study of the section through the middle of the site given in illustration No. 12, which shews

*Its  
contours.*

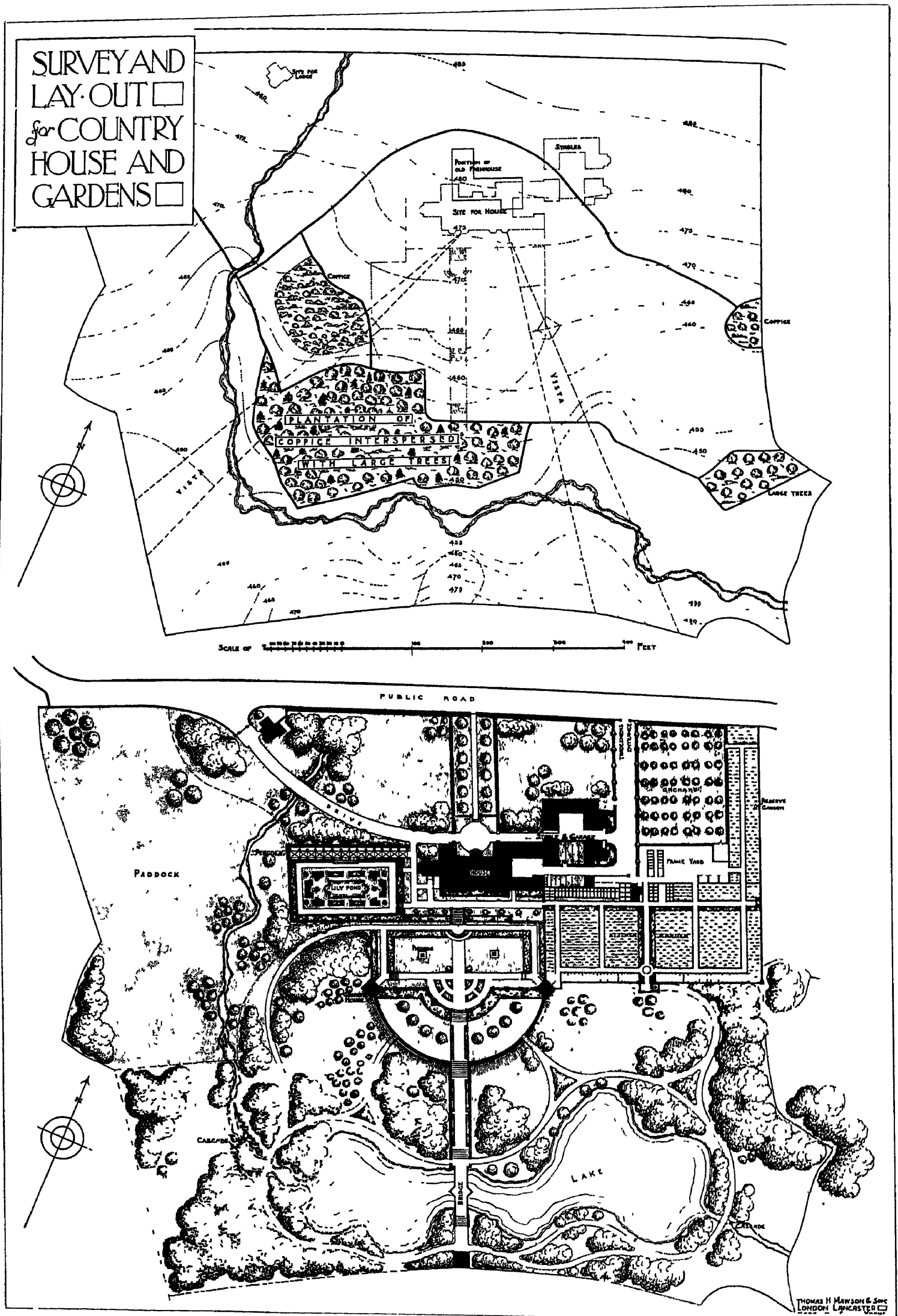


FIG 10.

## THE CHOICE OF A SITE AND ITS TREATMENT.

the original levels and also the proposed alterations. For convenience, the section is shewn in two halves, the lower being that at the north side of the site, and the upper continuing the section through the southern part and the swamp. The whole runs through the centre of the ground from north to south.

The soil over the greater part of the site is thin, and the subsoil consists of shaley stone, which renders the ground naturally dry, though in the swampy portion there is a deposit of peat and black loam. As will be seen from the section and also the figures on the plan, which represent the levels above the ordnance datum, or sea level, the land to the right of the plan is much more regular in contour than the remainder. From the road on the north side to the small scrub plantation in the centre of the site there is a fall of one foot in forty only ; below this point the ground dips quickly into the lower field.

*The soil.*

Such are the chief characteristics of the site, as revealed by a preliminary perambulation undertaken before commencing the arrangement of the various features necessary to a country domain, and it will thus be seen that it will require for its fullest development a careful study of the various natural features, especially the contour of the land, the character and extent of the existing plantations, as well as the range and composition of views obtainable from the higher ground. Our first and most important task will be, of course, the placing of the house, and, bearing this in mind as we walked over the site, we noticed that from near the old farm buildings, two views were obtainable which were sufficiently excellent to determine the location of the mansion. The point from which these views are obtained, and the angle of sight embraced by them are indicated on the plan by dotted lines. When we add to this primary consideration, that the suggested position for the house is well elevated ; that the ground is flatter here than elsewhere ; that it is a reasonable distance from the highway ; that the drive presents no engineering difficulties, and will in no way interfere with the privacy of the ground to the south, all doubts are dispelled as to the desirability of placing the house here. The fact that the two views are not obtainable from the same point will also have its bearing on the planning of the house in order that the windows of two of the principal rooms may help to focus them

*The placing  
of the  
mansion.*

It is surprising what a difference a few feet of elevation makes to the prospect from any piece of ground, especially in country which is slightly undulating, or where there is much timber. In such a case it is advisable, when deciding on the placing of the residence, to drive about the ground on the box seat of a cab and, at likely points, climb on to the roof and view the prospect therefrom. Where all is shut out by high trees, a platform of builder's scaffolding or three ladders lashed together to form a tripod may be used to ascertain which portions of the surrounding timber should be cleared to open the distant views and let in sun and air

A recent writer said.—“A client may think it proper to let the architect out at the front whilst admitting the decorator at the side door, but if he is wise he will see that they meet in the hall.” At every stage in the work, this truth is operative, but never more so than where the work of the domestic and landscape architect overlap. This subject has already been dealt with in the preceding chapter, but applies with particular force to the task of placing the house on the site, for while the landscape architect will wish to compose the whole ensemble with the mansion dominant, this is useless without the aid of the domestic architect in the placing and arrangement of the entrances and the orientation and lighting of the principal rooms. The house to harmonise with its setting, must, in a great measure, be ruled by the design of the latter, and its architectural details be conceived in the same spirit. In the disposition of the service buildings there must be co-operation, for while the domestic architect designs the culinary offices, the landscape architect places and arranges the



# THE CHOICE OF A SITE AND ITS TREATMENT.

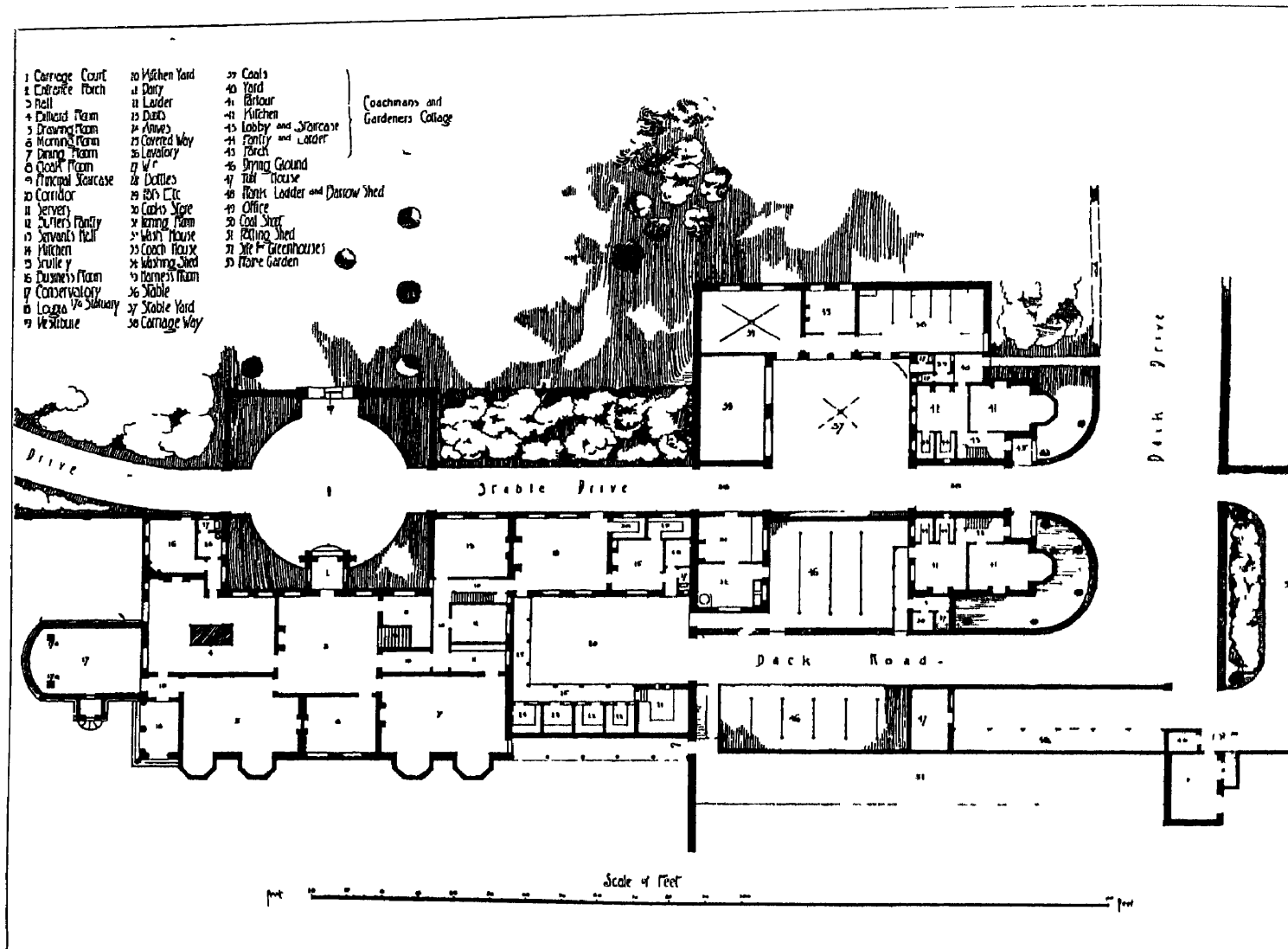


FIG. 11 — PLAN SHOWING MANSION AND ADMINISTRATIVE BUILDINGS GROUPED FOR COMPOSITE EFFECT.

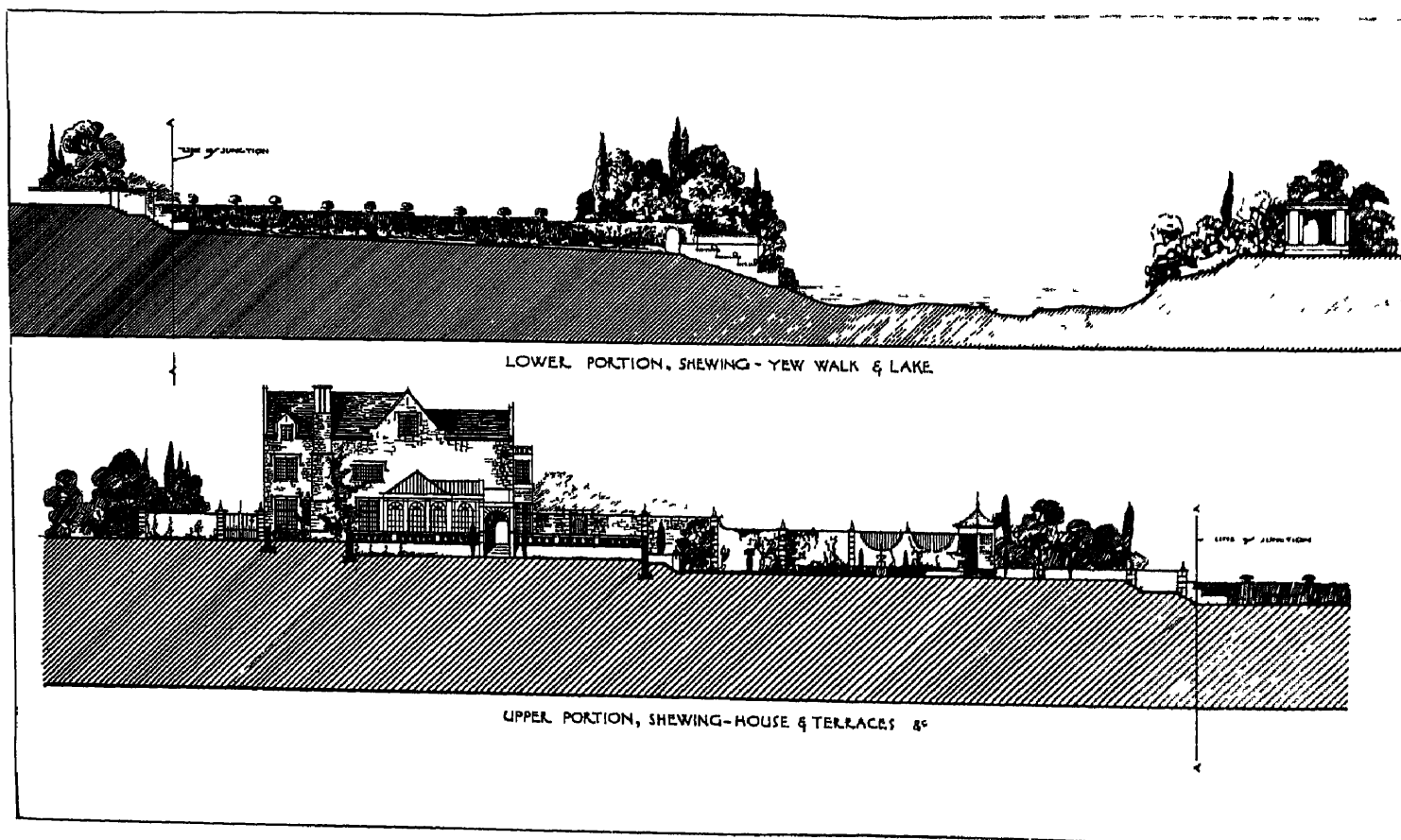


FIG. 12 — SECTION THROUGH GROUNDS TO A COUNTRY HOUSE.

## THE CHOICE OF A SITE AND ITS TREATMENT.

kitchen garden, and efficiency demands that they shall be reciprocally planned. The same principle applies to every other feature.

Considered from the landscape architect's standpoint, the chief essential of the planning of the house and its dependent buildings is that they shall be grouped economically and practically to ensure the smallest amount of unremunerative labour and running to and fro. This means that the mansion, stables, lodges, laundry, garage, and outbuildings be designed as parts of one block. How this can be done without disfiguring the mansion or destroying its privacy will be seen from illustration No. II, which shews the plan of the house and administrative annex designed to suit the ground in question.

In recent years, there has been a tendency to detach subsidiary buildings from the main block, the stables being in one place, the laundry in another, the kitchen garden in another, and the workmen's cottages away from the place altogether, with consequent waste of time as well as lack of composite architectural effect. Doubtless this state of things has, in the past, had its *raison d'être* in hygienic considerations, but modern efficiency in sanitary science removes all objections other than those which are merely sentimental.

*Centralization in planning*

Having disposed the principal buildings on the ground in collaboration with the architect, we now arrange the surroundings; but before doing so it is necessary to study the upkeep. Owners very properly give careful consideration to the cost of the forming their gardens, but few give due thought at the time to the more important question of annual maintenance. We will suppose, therefore, that the owner of the plot under consideration desires to limit the amount devoted to the annual upkeep of the grounds to £500 : 0 : 0. In such a case we must so arrange our plan as to limit the expenditure as follows:—

*The question of upkeep.*

								£	s.	d.
Head Gardener	50/-	per week	with cottage	...	...	Per annum	130	0	0	
Second gardener	35/-	...	do. do. do.	...	...	...	91	0	0	
One garden labourer	33/-	...	do. do. do.	...	...	...	83	4	0	
Strong youth	20/-	...	...	...	...	...	52	0	0	
Occasional help	...	...	...	...	...	...	10	0	0	
Seedsman's account for seeds, bulbs and sundries	...	...	...	...	...	...	25	0	0	
Nurseryman's account for fruit-trees, shrubs for making up, etc.	...	...	...	...	...	...	30	0	0	
Coke and coal for heating, peat, loam, silver sand, etc.	...	...	...	...	...	...	60	0	0	
Sundry expenses	...	...	...	...	...	...	15	0	0	
Balance	...	...	...	...	...	...	3	16	0	
								£500 0 0 *		

\* Nothing is allowed in this statement for interest on money sunk in lodges and cottages inhabited by gardeners, as the exact proportion of this to be credited would be difficult to apportion and would vary in each case.

These items will naturally vary in different years, but the total can be kept fairly constant by laying out the grounds to limit the amount of bedding out or other features which entail extra work. An incoherently planned garden entails more work than a co-ordinate design. Broad level stretches of lawn, with a few quaint box-edged flower-beds filled with old-fashioned perennials, require less labour than undulating slopes of grass cut up by tortuous walks and shrubberies with exaggerated curves.

Other practical matters influencing the ultimate design must be considered at this stage. The first is the scale and extent of the grounds and the relative proportion of the various parts. With regard to their scale and extent, after the question of cost, the size and importance of the mansion, together with the social status of the owner,

*Extent of grounds and proportion of their parts.*

## THE CHOICE OF A SITE AND ITS TREATMENT.

will be determining factors. The size of the establishment will decide the extent of the kitchen garden, orchards, laundry greens and other utilitarian features; and the ages and interests of the members of the family and the amount of entertaining they purpose will regulate the number of tennis or croquet lawns

These requirements, if altogether fulfilled, take second rank to the ideal desideratum that the garden should be a proper setting to the house, in which capacity it serves the double purpose of foreground to the landscape when viewed from the house, and at the same time provides a base or setting for the house when viewed from a distance. The garden is thus the link which connects house and landscape

*The individuality of the site to be preserved.*

Unfortunately prospective builders usually approach garden construction with preconceived ideas as to what is desirable, and proceed to make the site conform to their ideas, instead of taking inspiration from the site, thus putting "the cart before the horse." The bane of modern garden design, as of much contemporary art, is its inappropriateness, objects which would grace certain surroundings being obtruded among others totally unsuitable. By all means have a general idea of the requirements before commencement, but, with the site, begin the unique problems which differ from all others. These are the delight of the true artist, who, grouping the necessary features conveniently and compactly, at the same time adorns them with an expression which accords with the prevalent characteristics of the site, the local traditions, using the ready-to-hand local materials.

The late J. D. Sedding says:—"The gardener's first duty in laying out the grounds is to study the site and not only that part of it on which the house stands but the whole site, its aspect, character, soil, contours, sectional lines, trees, etc. Common sense, economy, Nature and art alike dictate this. "There is an individual character to every plot of land as to every human face, and that man is unwise who, to suit preference for any given style of garden, or with a view of copying a design from another place, will ignore the characteristics of the site at his disposal."

Another point before setting to work to develop the site is. Dressed up neatness is the soul of a garden. A garden should impress the spectator as being a place for flowers rather than shrubs, and should always have a cared-for appearance. The arrangement should suggest a series of outdoor apartments rather than a panorama which can be grasped in one view. Art is well directed in arousing curiosity, always inviting further exploration, to be rewarded with new but never final discovery. A garden ought also to proclaim itself as having been made for the accommodation and enjoyment of Nature's bountiful supplies.

*Entrance drive.*

The first features to receive the attention of the designer will be the entrance drive and service road. For the details of this work the reader is referred to a subsequent chapter. It is sufficient here to point out that, as already arranged, the house is placed near the old farmstead on a natural plateau about two hundred yards long from east to west and eighty yards broad, and, as the railway station is about three miles distant to the north-west, the most convenient position for the entrance will be as shewn on the plan (No. 10). This demands that the service road and the kitchen garden, laundry green and offices should be to the north-east of the main block. Had the main bulk of the traffic approached from the opposite direction, and the entrance therefore been placed near the north-east corner, the conditions would have been more ideal.

*The kitchen garden.*

The kitchen garden, which is in direct communication with the service block, is, with the surrounding borders, an acre in extent. It is surrounded by walls, that on the north-east side being ten feet six inches high, built of the local stone with a projecting coping and with weather boarding as described in the chapter on kitchen gardens. It has also wires strained horizontally on its south-west face twelve inches apart for fruit trees. The wall dividing the kitchen garden from the pleasure grounds has pilasters

## THE CHOICE OF A SITE AND ITS TREATMENT.

twenty feet apart to impart character to it, and, for a short distance from the garden house at the southernmost corner, wrought iron panels are inserted in the wall to allow extended views. At this corner of the kitchen garden the ground is raised on the outside so that there is space under the garden house for a store for tools, etc., with an opening into the kitchen garden. The garden house and the wrought iron bays in the wall are indicated at the right-hand end of the lower portion of the section (Ill. No. 12). The kitchen garden being used for promenading, as suggested in a subsequent chapter, a long walk is formed communicating with the pleasure grounds and forming, at its western end, a part of the upper terrace

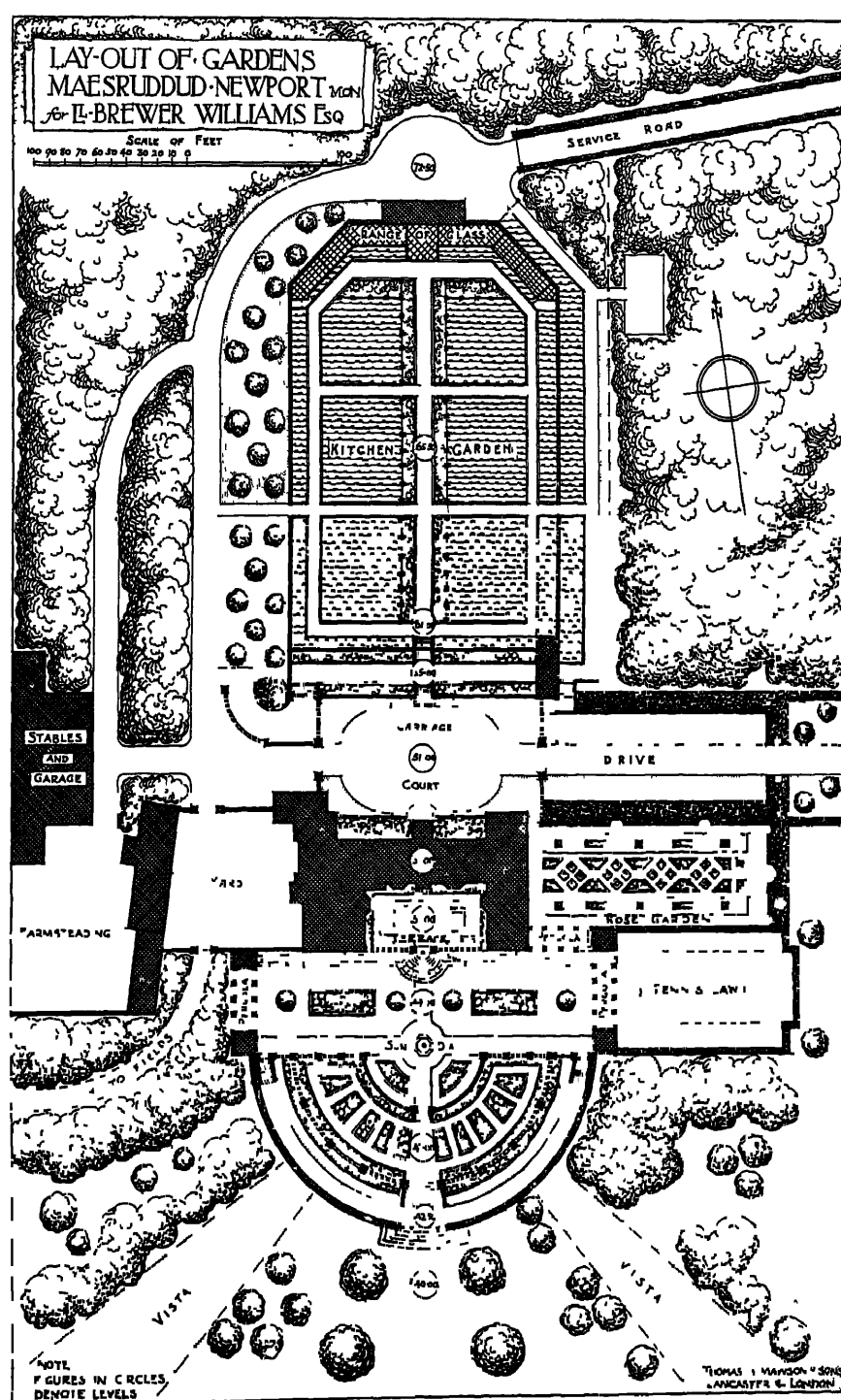


FIG. 13

The principal terrace is approached from the house either from the conservatory or loggia at the south-west corner or the garden entrance from the drawing room, which opens into the covered way leading to the glasshouses in the kitchen garden (No. 11). It can also be reached from the carriage drive through a wrought iron gate in an arched

Having thus disposed of the more utilitarian portion of the grounds, the pleasure gardens now claim attention. Here strict regard must be paid to the existing natural features and, in order to preserve the coppice woods, the formal gardens are somewhat smaller than would otherwise have been the case. Apparent extent is, however, obtained by means of the very strongly marked axial line at right angles to the south front of the house, which is continued across the lake by the garden temple on the opposite bank, as may be seen from the plan (No. 10), and which has necessitated the drawing of the sections (No. 12).

Working outwards from the front of the house along this section line, the levels of the made ground are disposed in accordance with the fall of the land considered in conjunction with the height of the house and the breadth of frontage. Care is exercised to make the amount of cutting, equal the filling. Sudden changes in level with consequent engineering feats in the way of strong retaining walls being avoided.

*Main axis of pleasure grounds.*

*The principal terrace.*

## THE CHOICE OF A SITE AND ITS TREATMENT.

opening in the wall, dividing this terrace from the drive. Its width is forty feet, which is made up as follows. The border next to the house is seven feet wide, then comes seven feet six inches of grass which divides it from the walk ten feet across, and beyond this there is fourteen feet of grass between the walk and the wall, the thickness of which makes up the forty feet

It is proposed that the upper terrace shall be supported by a handsome balustraded wall, and a broad flight of steps in the centre of this leads down to the lower terrace on the south-east side of the house, while another flight leads to the tennis lawn on the south-west. The latter lawn, with its surrounding flower borders, forms a third terrace constructed to a level somewhere between those of the other two, and, owing to the nature of the contours, it is only possible to make it large enough for one court. Other tennis could be provided on the open ground to the north-east of the house

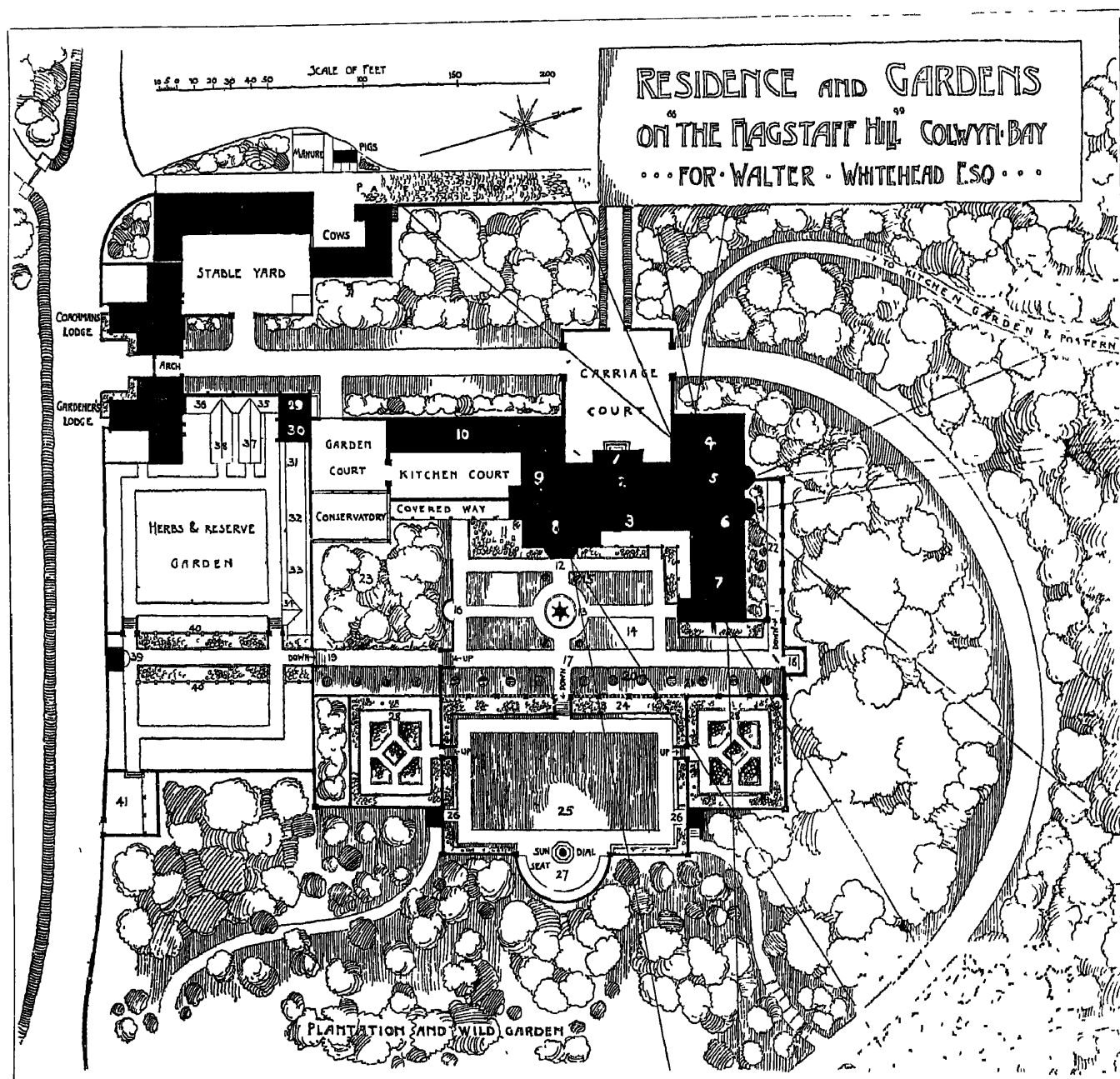


FIG. 14.

*The lower terrace.*

The lower terrace is arranged with a view to breadth of effect, good use being made of free-flowering perennials and roses to give colour, but concentrated to prevent a spottiness and also to emphasize the central axial line of the composition. The rest of the terrace is a broad expanse of lawn

Following the principle already enunciated, the further we proceed from the house the freer should become the details of the garden scheme, accordingly the retaining

## THE CHOICE OF A SITE AND ITS TREATMENT.

wall of the lower terrace, instead of being wrought and balustraded like that between it and the higher terrace, is built in the local random-coursed ragstone with a plain coping. To obviate baldness, buttresses occur at intervals with pier caps and finials, thus breaking the straight line and helping the perspective.

Further still from the house the formal arrangement is continued by the walk down to the lake, and is enclosed by the clipped holly hedges shewn on the upper portion of the section No. 12. However much the greenery is clipped, it can never be as hard as a wall.

To dam up the stream so as to restore the lake to its original levels is an obvious necessity, and to prevent any hard break between the formal and the natural in the arrangement where the path from the house meets it, a bridge is suggested connecting with a garden temple on the opposite bank.

*The Lake.*

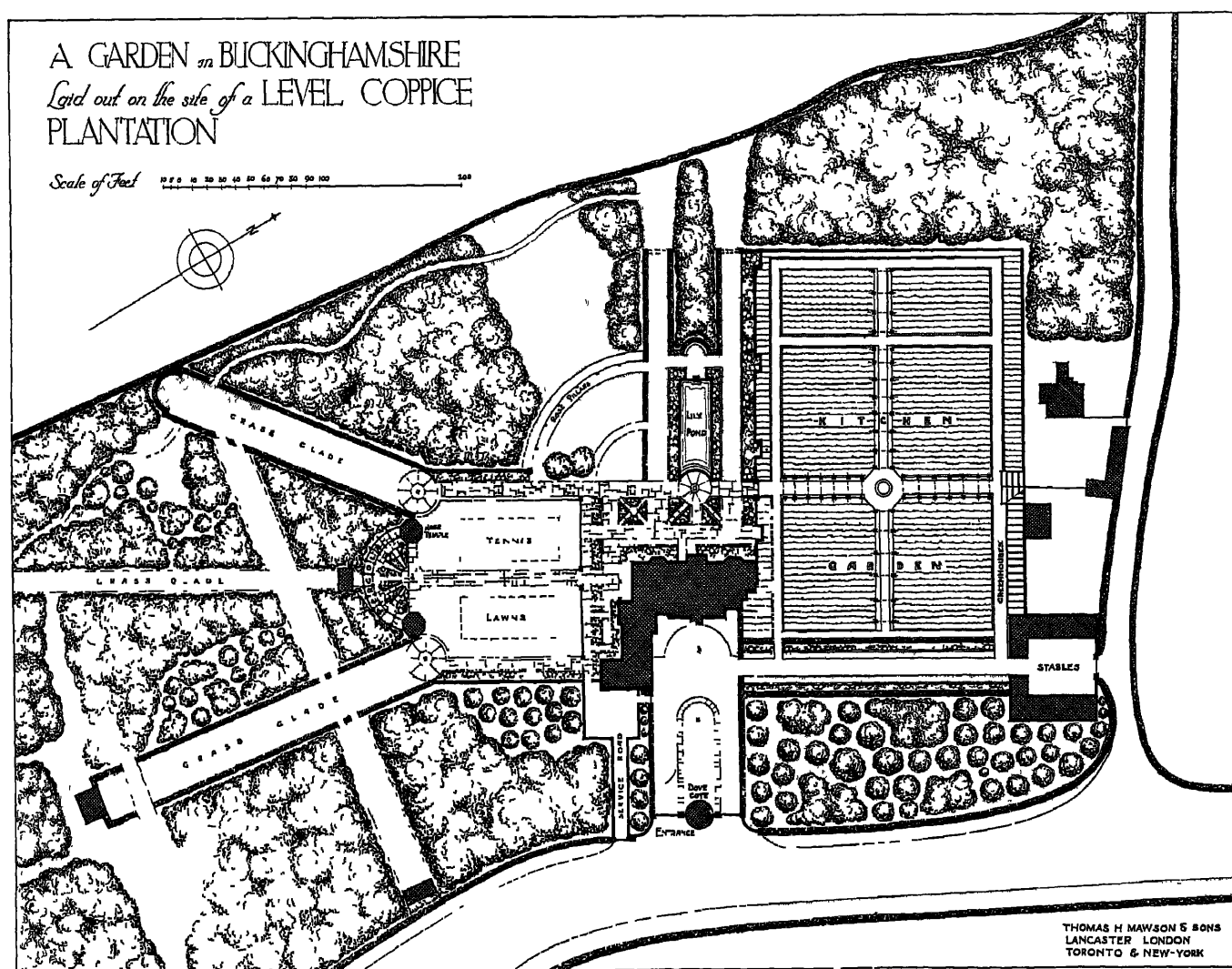


FIG. 15.

There remain only two other prominent features for consideration, the stream and the paddock. The former is left much in its natural state with the exception of the insertion of a little rockwork such as shown in illustration No 288, and the enlargement of some of the pools to accommodate aquatic plants. The paddock is placed to the south-east of the house with convenient access to the public road, and is brought into the garden scheme by the arrangement of the plantations both within it and near its boundary.

*The Paddock.*

Of the planting it is not necessary to speak at length as the whole subject is dealt with in a subsequent chapter. The chief thing is to ensure shelter at one or two points and to frame and enhance the existing views to the south.



## THE CHOICE OF A SITE AND ITS TREATMENT.

*The value of compactness in planning.*

Briefly stated these are the more prominent of the many problems which beset the prospective owner in choosing his site and deciding its broad lines of development. Details must be left to be dealt with, each in its own separate chapter. It is impossible to illustrate every point in this complex undertaking from one site, however typical that one may be. Thus, the value of compactness and agreement between the several indoor and outdoor departments of a country residence cannot be over-estimated. How far this principle may be carried is shewn on the plan in Illustration No. 13, of a house and garden now in course of erection in South Wales. The site is a very elevated one, with a slope to the south-west, though on the eastern side there is a partly level stretch extending to the highway. As the house has been developed from an old cottage and farmstead it will be seen that the plan is almost ideal in its compactness and convenience for economical working.

*Exceptional sites.*

In other cases, family, social or commercial interests may outweigh all other considerations and lead to the adoption of a site which, though ideal for a picnic or excursion, does not possess those qualities usually sought for in a domain. Unpromising beginnings, however, often lead to the most interesting results as may be seen from the gardens shewn in Nos. 14 and 15. The first one, the Flagstaff, Colwyn Bay, crowns an eminence which, up to recent years, was the best known point of interest in the neighbourhood. The second is a wooded and level area of seven acres in Buckinghamshire which possessed a few fine oaks and had been planted all round with a wide belt of trees, of about thirty years' growth, giving on all sides a ragged line and effectually cutting off open views. Though flat, the ground is well elevated, and, from a raised platform erected on the spot chosen for the house, it was possible to take a survey of the surrounding country, composed of well-timbered rolling downs almost free from buildings. From this platform radial lines were drawn on the survey plan in the direction of the interesting views, and house and garden planned in relation thereto. This involved the felling of a number of young trees and the opening of glades which not only framed the distant views but let light into the grounds

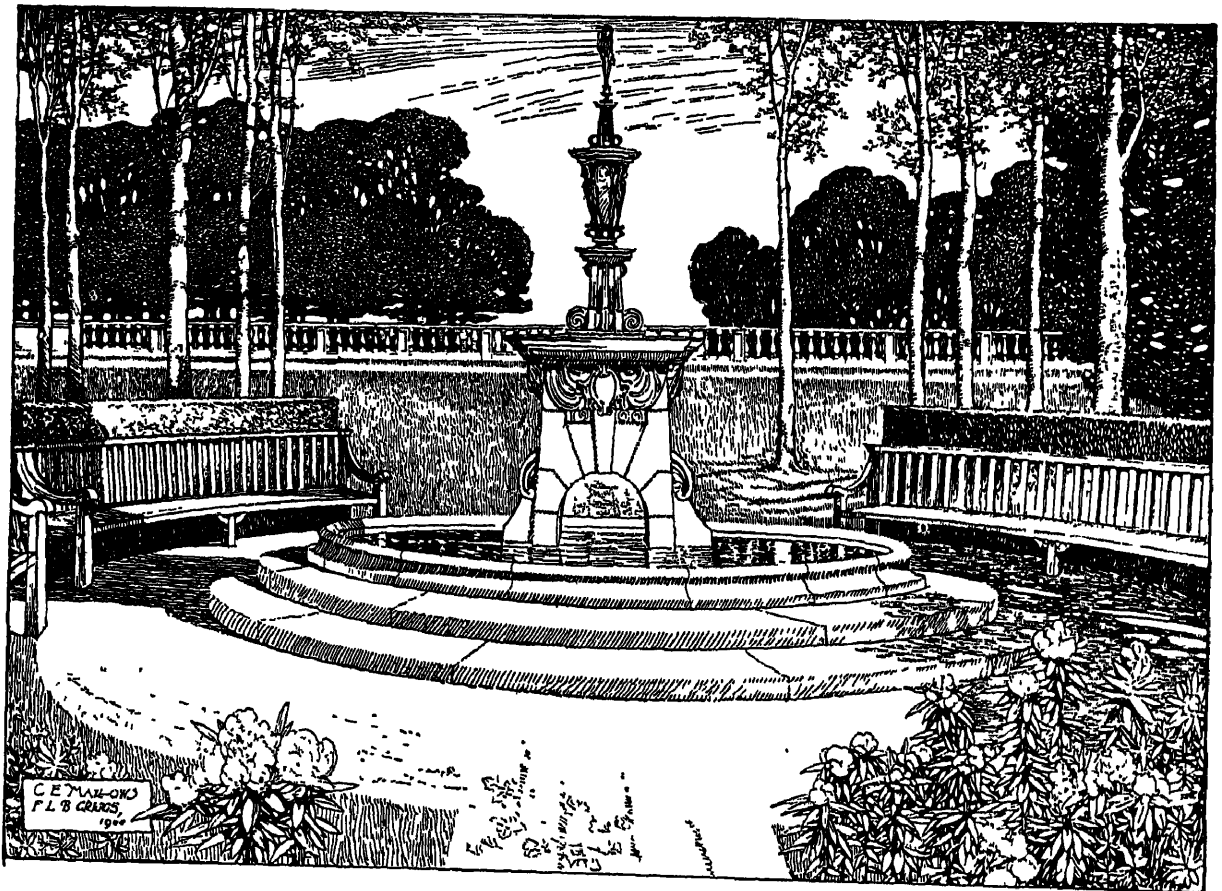








FIG 16.—GATEHOUSE SCREENING CARRIAGE COURT AT THORNTON MANOR, CHESHIRE.  
*From the Highway.*



FIG. 17.—GATEWAY SCREENING CARRIAGE COURT AT THORNTON MANOR, CHESHIRE  
*From the Carriage Court*



## CHAPTER IV.

No part of a scheme for a residential property call for such thoroughness or mature deliberation as entrances and carriage courts. At the entrance is obtained the first impressions of the domain, which, like all first impressions, either of a person or of anything else, are the ones which last. Existing examples present every gradation from the cheap modern over-pretentious arrangement, to the entrance which properly suggests the impersonal and dignified charm of a truly English home, under whose subtle spell you fall immediately you enter its precincts. This noble type of work, characterised by proportion, restraint, and quiet dignity, is what all true designers seek to create, yet find it difficult to achieve. The same qualities are essential in the forecourt, but here the opportunities are greater. A well-considered grouping of house, stables and outbuildings round a sufficiently large space will usually assure an æsthetic composition which needs only a pair of piers and a short enclosing wall to complete it.

*First impression gained from style of entrance.*

The design of an entrance, whether in the form of gate-houses, lodge-entrances or the more simple and homely arrangement which gives character to many a suburban residence, is the keynote leading to what follows. This keynote should above all things be truthful. For instance, the classic proportions and details shown in illustration No 18 are a natural prelude to the beautiful residence in the Italian manner two hundred yards distant. And that shown in the heading to the next chapter equally prepares the eye and mind for the quaint yet stately Georgian house which is typical of many good examples near London. Where an entrance is placed some distance from the house, the note which accords with the landscape ought to be more pronounced.

This index to the architectural qualities of the property is capable of much greater development than the mere differentiations between the entrance to a ducal domain and that to a mountain lodge or shooting box. These mark the two extremes, and are not difficult to attain. Scale and refinement would most beseem the one, and rugged picturesqueness the other. What is much more difficult, but none the less important, is to interpret, in the lodges and entrance as a whole, those subtle distinctions not only of style and scale but also the finer qualities of perfect harmony with environment and the expression of the social or intellectual ideals for which the family may be noted. Just as it may be said that a place fits the family, so the entrance should fit the place.

*Fitness and scale.*

On large estates, old and semi-retired servants are often placed in these lodges, the wife to attend to the gate, the man to keep the entrance clean and tidy. Under these conditions the lodges are usually very small, and often of one story only, the architectural emphasis being gained by massive gate piers, beautiful wrought-iron gates, and fine wing walls. On the other hand, if the lodges are to be occupied by the gardener or other

*Lodges.*

## ENTRANCES AND CARRIAGE COURTS



FIG 18.—ENTRANCE TO THE GROUNDS OF A RENAISSANCE MANSION  
ARCH. · FRANK ATKINSON, F.R.I.B.A.



FIG. 19 —A SIMPLE ONE-STOREY LODGE BUILT OF LOCAL MATERIALS.

active servants, they might be treated as the architectural *tour de force* of the entrance, the gates, piers and wing walls being designed on simpler lines. Illustrations Nos. 18 and 19

*Gate-houses.*

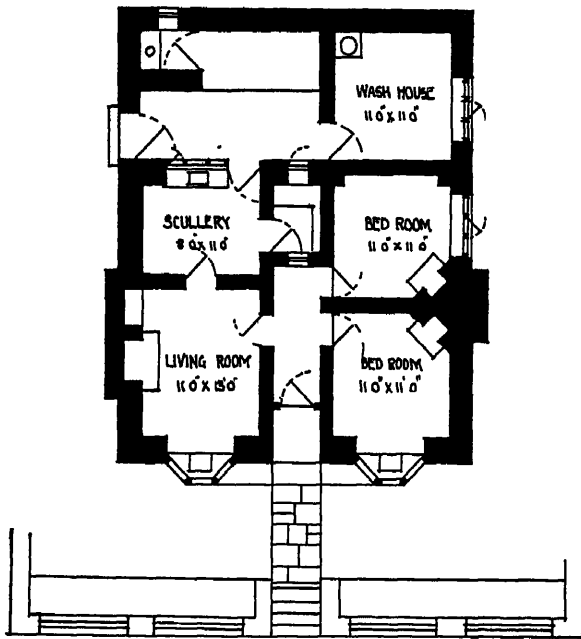


FIG 20 — SMALL ONE-STORIED LODGE  
(THE LATE MR DAN GIBSON, ARCHITECT)

show simple convenient forms of one-storied lodges, each having living room, scullery, two bedrooms, a porch and larder, with the usual conveniences. Gate-houses, as distinct from other forms of lodges, invariably need the close association of other buildings, and are usually placed near the residence, either at one side of the carriage court, as in Illustration No 25, and as in the well-known example at Borwick Hall, or on the side opposite the main entrance to the house as in No. 91. In the older examples these were seldom placed further away than in the well-known gatehouse at Charlecote, unless treated as the entrance to some lordly domain from the town or village, or, in very exposed positions, to give shelter to the grounds as in the case of those shown in illustrations Nos. 16 and 17.

The twin lodges (Ill. No. 24), designed in connection with one of the principal entrances to Pittencreiff Park, Dunfermline, provide, in general grouping and composition a transition from the gate-house to the pair of lodges; these were to be placed at the end of a wide avenue leading to the house

Single lodges usually require much more careful planning in relation to the site than double lodges, for in the latter case, provided the drive is at right angles to the public road, and continues for some distance in a straight line, the symmetrical balance secures an imposing effect. Single lodges are usually erected in positions where the drive takes an oblique or curving line from the road. The lodge must therefore be placed, and the windows of the living room so arranged to secure an extended view of the road on one side and the drive on the other. This lends itself to picturesqueness of outline and composition and originality of treatment.

This position of the lodge, in relation to the direction from which carriages approach, and to the facilities for opening the gates, is important. The arrangement aimed at is to obtain the longest view of the drive and of the public road, so that the attendant may have due warning of the arrival of vehicles. This is explained by the accompanying plan No. 21. The curved line represents the course of carriages driving to the residence; the living room A has a bay window commanding the drive in both directions, as indicated by the radiating lines, and the entrance porch B is within seven yards of the centre of the gateway. If after passing the gates, the drive curved in the opposite direction, an additional window would be required at E.

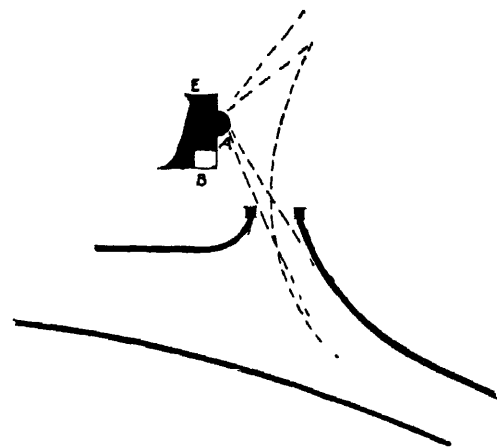


FIG 21

*Placing of  
the lodge.*

Lodges placed a little distance back from the wing walls are the most pleasing, though the many considerations which influence their position make it difficult to lay down a general rule. The ground may rise so rapidly from the entrance, as in the case shown in Illustration No. 23, as to give the lodge a stilted appearance if set back, or it may fall so rapidly as to compel their erection close up to the wing walls, when it is necessary to bring the lodge closer to the road. An example of double lodges demanding a very open treatment is shown in the heading to Chapter VI. These

*Double  
lodges.*

## ENTRANCES AND CARRIAGE COURTS.

were erected as the entrance to Brooklandville, an old colonial classic residence near Baltimore, U.S.A. Although the public road was wide enough, the macadamized part was very narrow, and therefore it was desirable to provide stretches of grass outside the

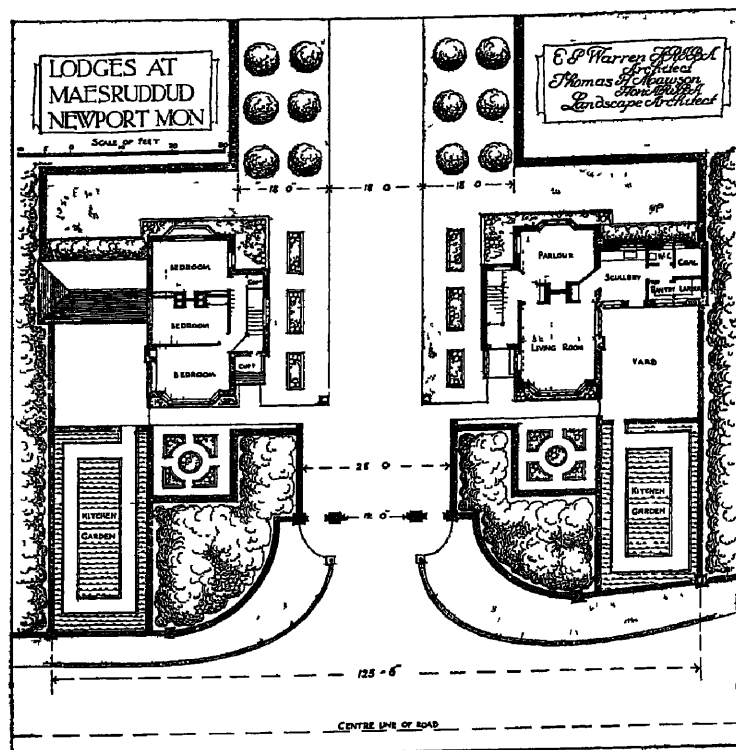


FIG. 22

gates, and give to the latter added importance by the provision of wrought-iron grilles. Illustration No 22, shows two lodges designed by Mr. E. P. Warren for a client in South Wales; the ground floor of that on the right and the upper floor plan of that on the left being shown. The broad straight drive, as planned by the author, planted as an avenue, makes a dignified approach to the modern mansion. In No 28 are illustrated a pair of workmen's cottages as lodges, placed at some distance from Dunchurch Lodge, Rugby, designed by Gilbert Frazer, Esq. Unfortunately the photograph was taken before the climbers and surrounding plantation had been given time to add their picturesque and softening touches to the composition. There is a more dignified lodge at the entrance to

the gardens. Single and double gate lodges placed at the ends of long park drives, by their happy combination of homely circumstances, blend perfectly with their picturesque landscape surroundings, and impart a scene of peaceful habitation. It is this delightful homeliness above every other quality that is to be sought in lodges removed from the mansion; in these

and similar positions rustic character need not be sacrificed to style. Given the right surroundings, this is much to be preferred to making the lodge appear as an offshoot from the mansion. Illustration No. 19 gives a solution of this problem of an entrance so far removed from the mansion as to suggest a design which harmonizes with the district of which it forms a part, rather than the mansion to which it belongs.

In choosing a position for a lodge, although a backing of foliage is desirable, do not place it amidst or too near trees, but allow ample space for sunshine and flowers.



FIG. 23—LODGE AT THE FLAGSTAFF, COLWYN BAY

# ENTRANCES AND CARRIAGE COURTS.

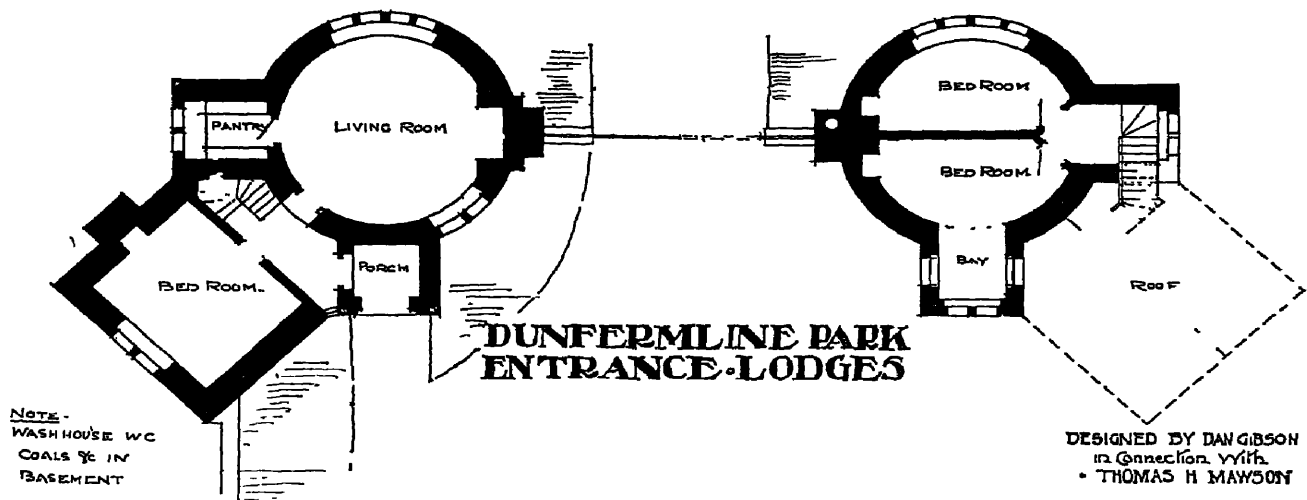
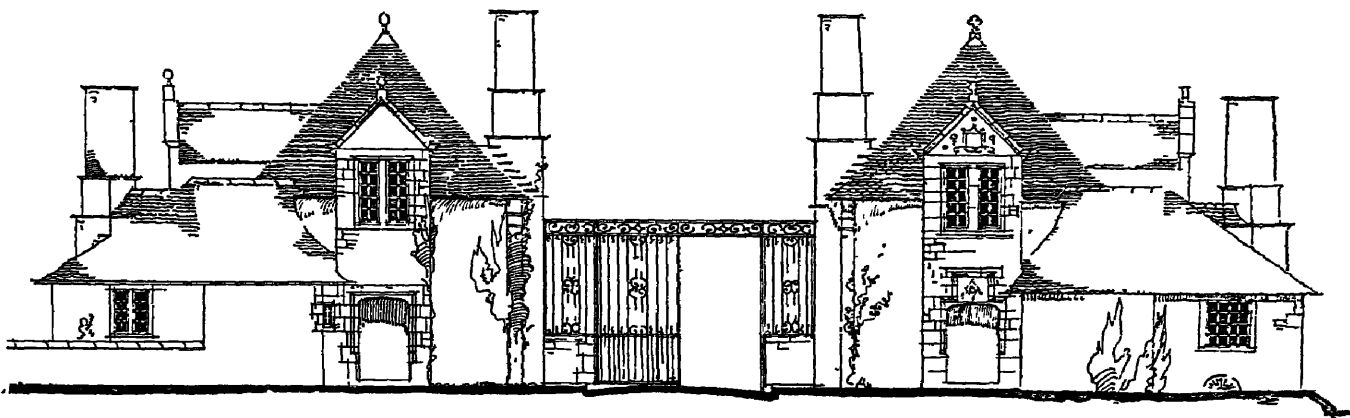


FIG. 24.



FIG. 25.—THE CARRIAGE COURT, "WOOD," DEVONSHIRE.

## ENTRANCES AND CARRIAGE COURTS.

A common mistake is to omit the yard and provision for the ordinary household requirements, such as drying clothes, which can be arranged with privacy by enclosing a piece of ground within hedges or walls

*Grouping of  
garage,  
stable, lodge  
and  
entrance*

All examples referred to so far are connected with more or less extensive domains. There is a tendency for them to become sub-divided to meet the growing demand for small compact country residences which the motor car has brought within the reach of so many persons who for business reasons have hitherto been compelled to reside near railway stations. Such properties are often small in extent, ranging from five to twenty acres, which must be so developed as to secure the delights and conveniences of larger estates. They must therefore be carefully and compactly planned, providing, in addition to a good garden for use and ornament, a small garage or stable, with chauffeur's apartments, coachman's or gardener's cottage. Here necessary compactness of plan often leads to a most effective grouping of garage, stables, lodge and entrance. The result is usually better than a series of scattered buildings, and indeed often adds a note of interest to the garden. Illustration No. 29 shows such an arrangement. Here the residence stands on an elevated site and is some one hundred yards distant. This picturesque and well-planned group was designed by W Leiper, R S A, of Glasgow

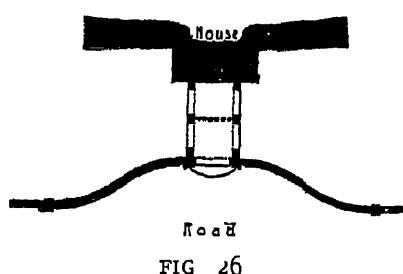


FIG 26

The grouping of the necessary accessories to small country houses will undoubtedly be further developed, and out of this may grow a distinctive character and style, but, as each site will need special consideration, no fear need be entertained of monotonous repetition.

Suburban houses, on a site of perhaps only two acres, require greater care in their placing than any other, such houses when built on the south side of the road, are invariably placed near the public highway, with little more than a carriage court or even only a covered way (Ill No. 26) to separate them

*Houses  
near the  
highway.*

The houses on such restricted sites were formerly plain Georgian structures, with characteristic portico entrances. This refined and scholarly phase of English domestic architecture, whether near a town or in the country, calls for a corresponding solidity and richness in the entrance piers, wing walls, and gates. At Fairfield House, near Bolton Abbey (Ill. No 50), piers stand at either side of the entrance to the North Garden, which was probably at one time the carriage court. The wrought-iron gates, which from their position and proportions must have been very beautiful, have disappeared. The Carshalton gates and piers are better known, but both serve to show how much the architects of the later renaissance valued the entrances as points of emphasis, often restraining expenditure on the house that they might enrich them.

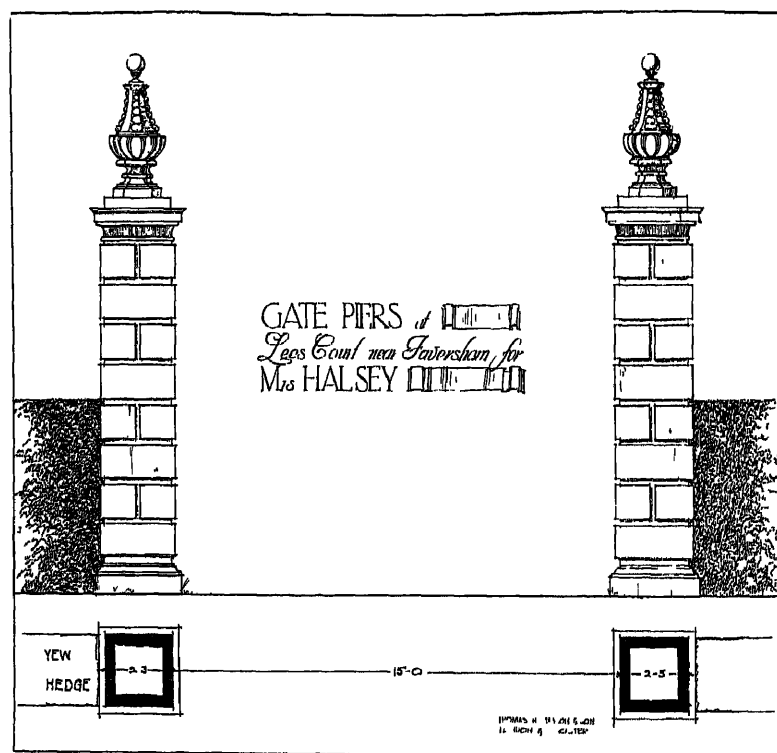


FIG 27

The gate piers at Wood, a modern residence on Dartmoor, are of more modest





FIG. 28 —ESTATE WORKMEN'S COTTAGES AT DUNCHURCH LODGE, RUGBY  
GILBERT FRAZER, ARCHITECT



FIG. 29 —LODGE AND GARAGE, BY W. LEIPER, R.S.A.



## ENTRANCES AND CARRIAGE COURTS.

dimensions, and on that account perhaps better adapted to the majority of entrances (Ill. No. 31). They are built of roughly squared granite, with simple capitals to permit of the moulds being cut by local workmen, the whole surmounted by lead urns. Other columns of similar height, but in brick, are shown in No. 35. Others in brick and tiles and octagonal on plan are shown in illustration No. 36.

*Gate piers and local material.*

Where a homely quaintness is sought after rather than architectural expression, much may be done with the simplest local material, whether brick and tile, granite, limestone, millstone grit, or slate rock as in Westmorland and North Wales. Where there is neither rock nor brick of sufficiently good quality to stand the strain of gates, any material which comes handiest may be built up in cement and completed in cement rough-cast, with a flag or simply dressed cap, which may be surmounted by a ball, sugarloaf, or other suitable finial. An example in rough stone is given in No. 30, and of brick in Nos. 35 and 36.

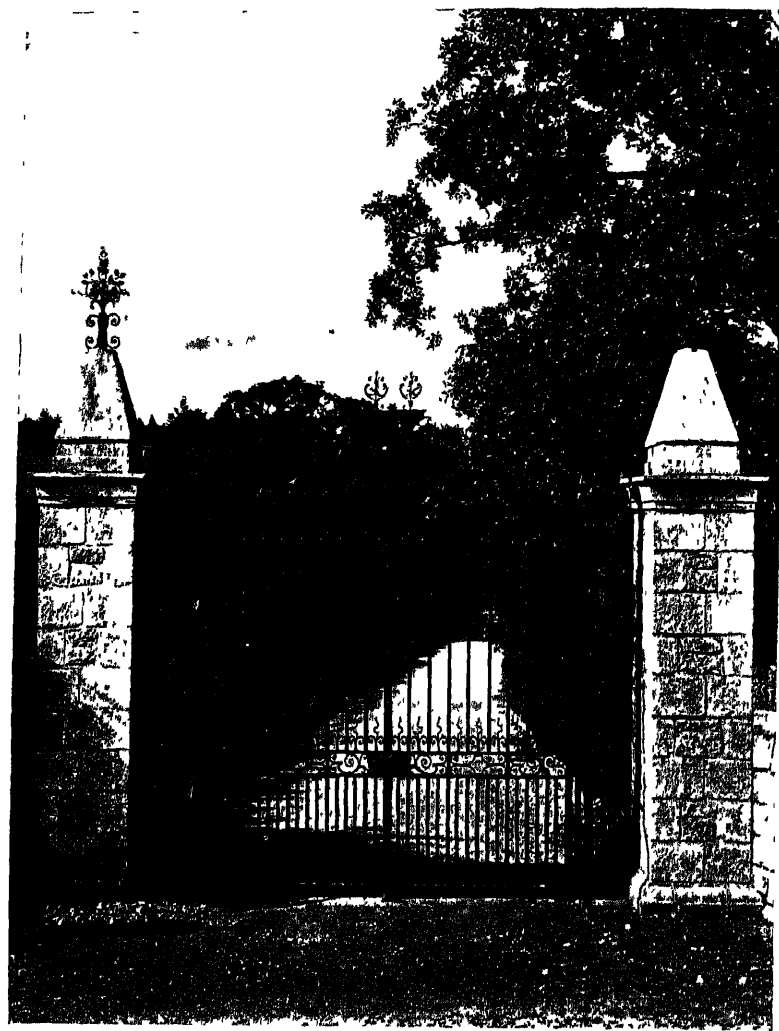


FIG 30.—A SIMPLE ENTRANCE IN GRANITE AND WROUGHT IRON

*Wrought iron gates.*

For the gates themselves, wrought iron in some form or other, either plain or ornamental, is the best. No reference has been made to those achievements in the smith's art which are the fitting accompaniment of the palatial mansion, but a study of them is not only interesting but helpful to all who contemplate the erection of new entrance gates, even though they may necessarily be on a modest scale. Considered from the practical point of view, wrought iron lasts longest and needs little repair beyond an occasional coat of paint. Unfortunately no material lends itself so readily to the manipulation of the wholesale manufacturer who, by his machinery, supplants the craftsmanship of the worker, and for this reason a perfectly plain gate carefully constructed is better than an elaborate machine-made one.

Three recently constructed carriage gates are illustrated as proof that the capable craftsman is still with us. No. 31 shows the gates at "Wood," No. 32 the gates to the carriage court at Dunchurch Lodge, near Rugby, and No. 34 to the principal entrance, Little Onn Hall, Staffordshire.

*Gates in wood and iron combined.*

A combination of wood and iron is often sometimes successful. There seems no valid reason against this combination as the difference between the lasting qualities of the two materials. Designs, Nos. 35 and 36 combine both materials, the iron being treated constructionally to strengthen the woodwork of the gates. Teak, on account of its endurance is excellent timber to use in conjunction with iron, so is English oak, but pine, even when well painted, decays quicker by contact with it.

*Wooden gates.*

For most people an oak or painted gate must suffice. For detached villas and even larger houses, gates, partly panelled or with open bars and hung with substantial strap hinges to squat, strongly-built stone or brick piers, as shewn in illustration No. 70,



FIG 31.—ENTRANCE TO "WOOD," DEVONSHIRE.



FIG. 32 —ENTRANCE TO CARRIAGE COURT, DUNCHURCH LODGE, NEAR RUGBY

## ENTRANCES AND CARRIAGE COURTS.

are both effective and inexpensive. Over-elaboration is banal, and adds unnecessarily to the cost. Simple, well-proportioned gates of good construction, are the most satisfactory, whilst the money thus saved would often pay for the erection of stone or brick hanging piers. Gates which are not constructed on the principle of the five-barred gate, i.e., with diagonal braces, are better in pairs.

The setting-out widths for entrance gates, ranging from a main entrance to an important property down to a single gate to a suburban villa, are shown on illustration No. 37.

In planning the wing walls every designer naturally has his own ideals as to what will suit any given position. Practice, and failures in practice, yield useful object lessons and settle points which, although they involve a few restrictions, eventually open up original solutions.

As previously stated, the distance from the line of roadway to the entrance is dependent on many things. If the drive runs at right angles to the road, it is advisable to place the gates far back to allow a turn of large radius for carriages and motor cars. If the public road be narrow in proportion to the amount of traffic

upon it, it becomes all the more necessary to have some form of deeply recessed wing walls.

Broadly speaking, there are three forms of wing walls, viz., the bell, and the cup

*Wing walls.*

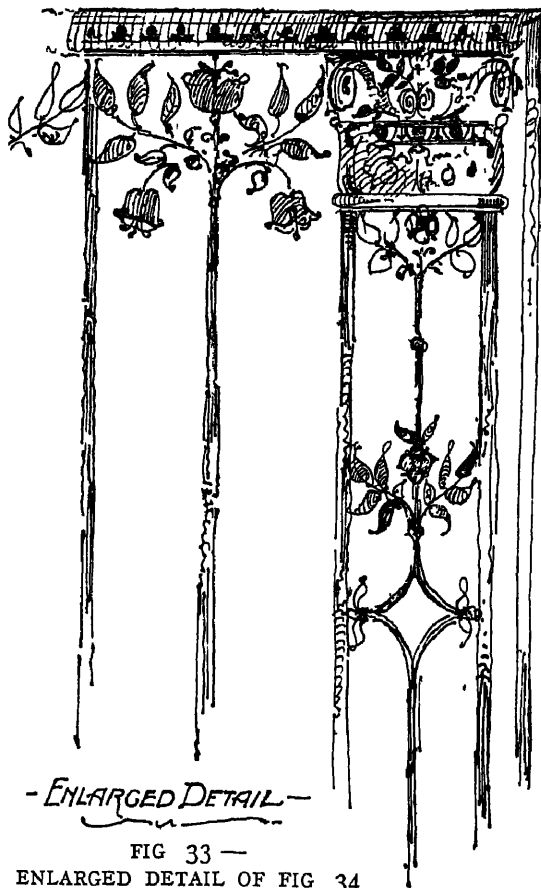


FIG 33 —  
ENLARGED DETAIL OF FIG 34

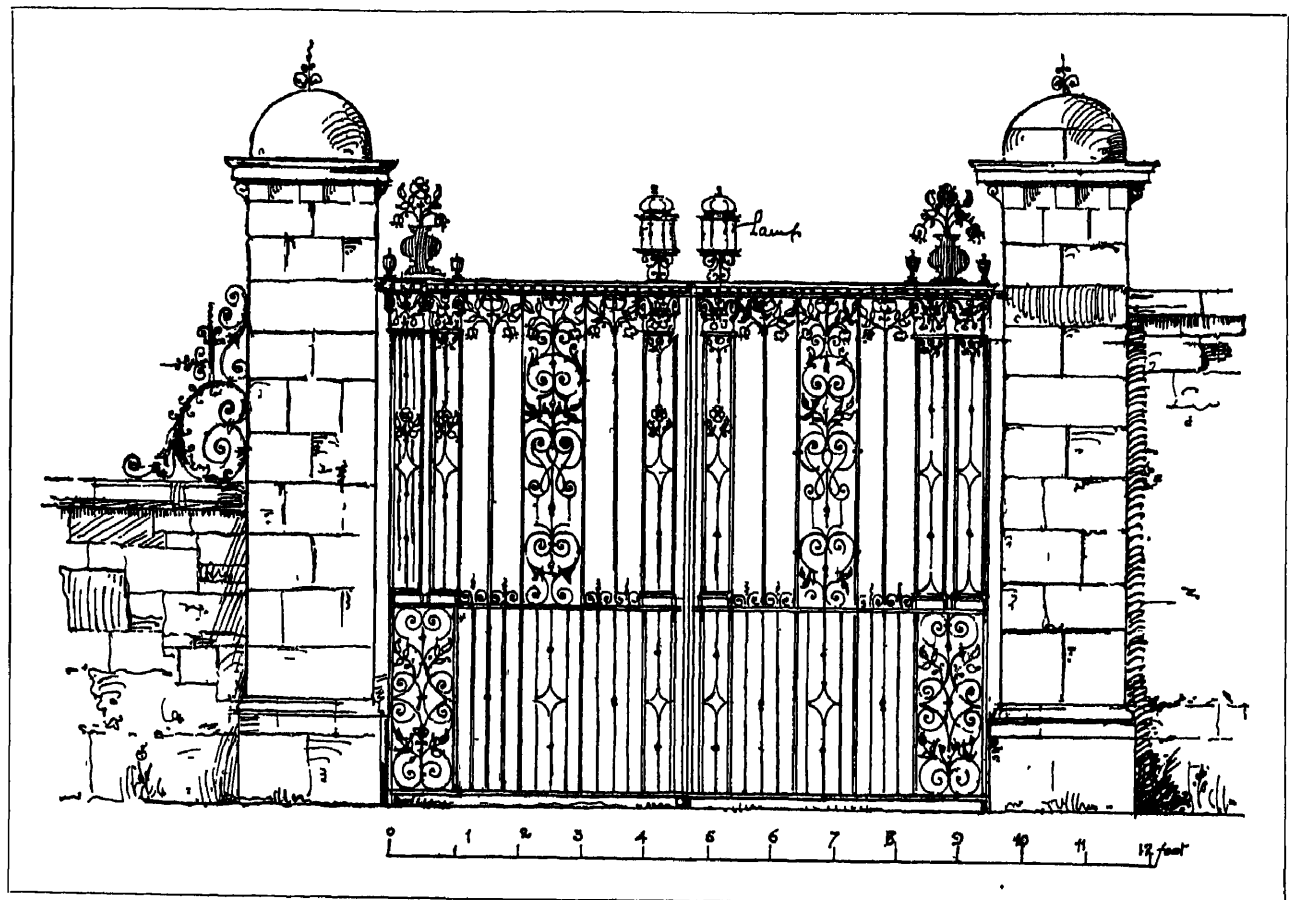


FIG 34.—ENTRANCE GATES AT LITTLE ONN HALL, STAFFORDSHIRE.

shapes, formed by convex and concave lines, and a combination of the two by O. G. lines as shown in the accompanying sketch (Ill. No. 38), and of these there are many

## ENTRANCES AND CARRIAGE COURTS.

variations and developments, such as splayed wing walls. For entrances placed at right angles to the road, the cup-shaped plan is generally most effective because it allows an outside green, which may be protected by posts and chain. The next best is the

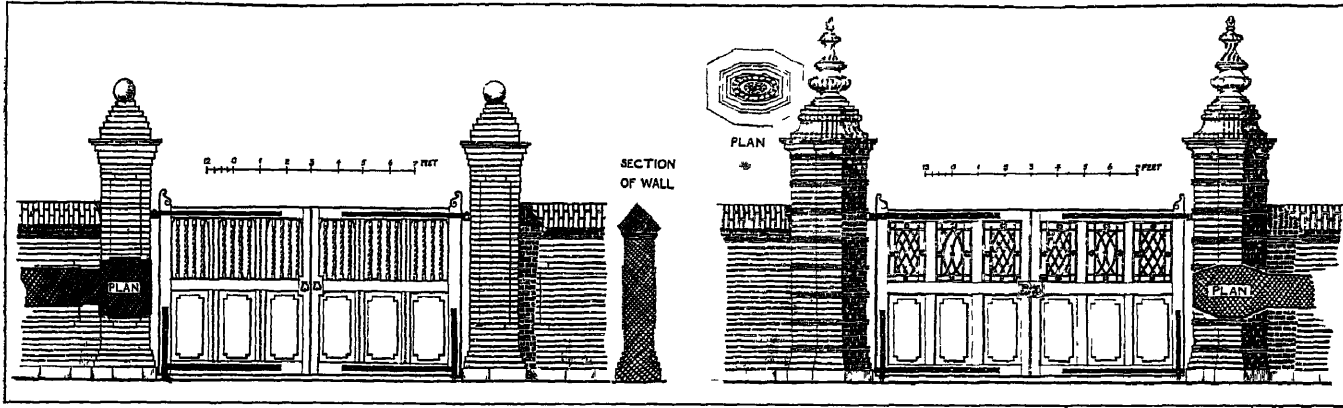


FIG. 35.

FIG. 36.

O G line; but for drives entering at irregular angles the bell-shaped is preferable, the convex lines being more adaptable to an unsymmetrical plan and wing walls of unequal length. Where the entrance is at the end of a street, as Illustration No 39, and the residence sufficiently important, the outer pillars are effective if in a line with the

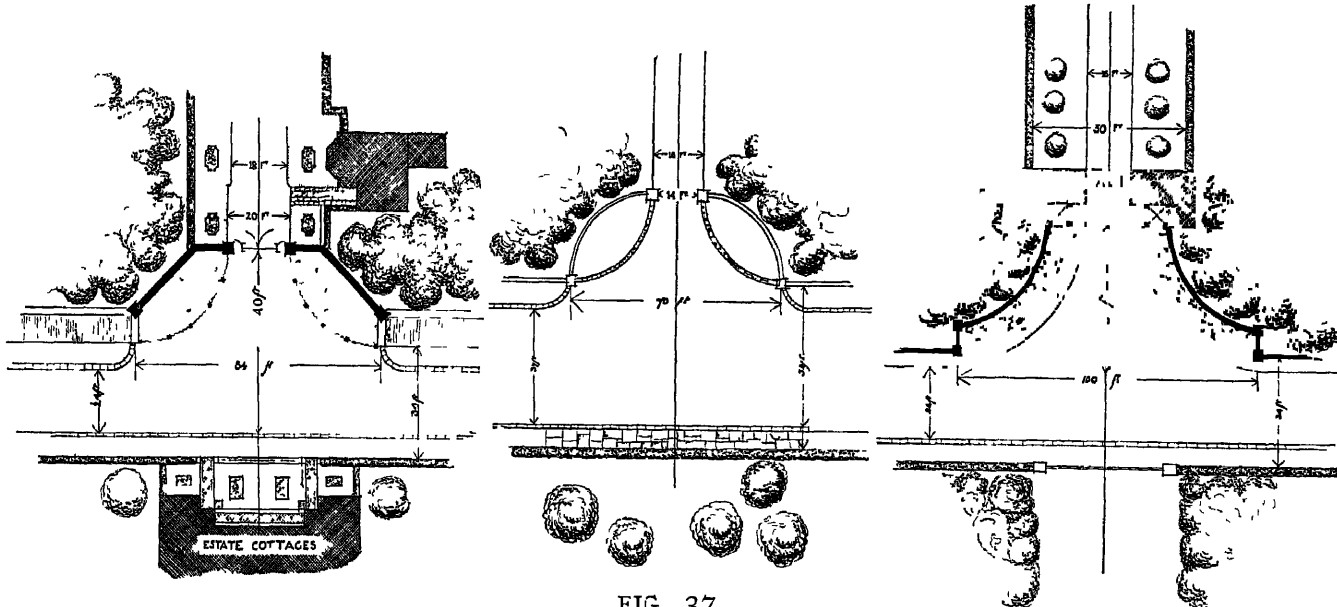


FIG. 37.

outside width of the street; the wing walls, being concave, describing a quarter of a circle. Frequently effect may be obtained by simply arranging the gate piers in a line with the boundary fences and not recessing the gate. This only applies where there is no cross traffic, as for instance where the gate entrance stands at the end of a street or lane.

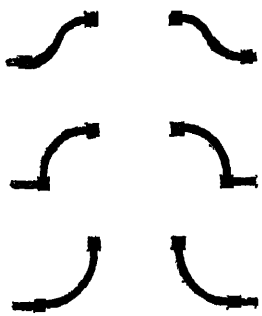


FIG. 38.

The most difficult entrances to set out satisfactorily, are those which are of irregular shape, i.e., with unequal wing walls. Nothing could be more deceptive to the uninitiated than the effect of curves. Even when they have been carefully planned, they lose that easy flow of line which on paper looks so pleasing, there being a difference between a flat scale drawing and the lines as laid down and viewed in perspective. When dealing with a long curved wing

wall to an entrance as in illustration No 21, the method is to have the ground roughly graded and a rope line laid down along the curve. For this purpose, obtain an old cart rope, or any rope free from stiffening, tie one end to a peg fixed where the wing wall strikes the pillar, and fix a second peg at the extremity of the curve; throw out the rope between these two points, walking along the proposed line with rope in hand, allowing it

*Laying  
curved wing  
walls.*

## ENTRANCES AND CARRIAGE COURTS.

to pass lightly through the half-closed fingers, repeating the operation until the line is pleasing. Having fixed the curve, place ranging poles at regular distances along it, and imagine the interspaces to be built wall, when the result will generally be to make the line longer or flatter by carrying the first peg further along the road. Curved lines always appear more full and rounded when viewed in perspective. If architectural character and dignity are desired, from these actual lines make a survey, and thereupon design the elevations. Carriage entrances, if sufficiently important, should have side gates for pedestrians on one or both sides. They may be any width from three to five feet, with the kerb of the sidewalks, where these exist, terminating against the pillars. The opening for a carriage gateway is usually 12 feet, but if the gate pillars and general arrangement are on a large scale, 14 feet is not too wide. These dimensions cannot as a rule be exceeded with satisfactory results. Where wrought iron is used and a very open effect is aimed at, fixed side panels with strongly braced and strutted hanging bars may be adopted.

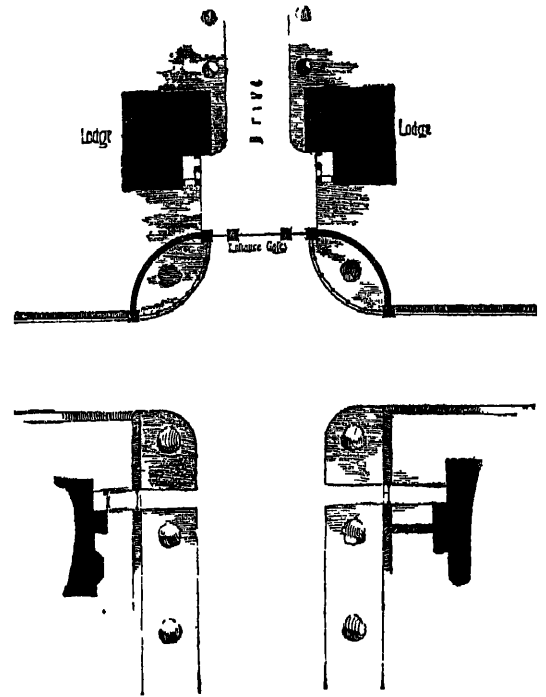


FIG 39

*Carriage courts.*

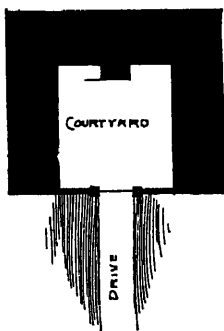


FIG 40

In the old examples of carriage courts or turns, the shape and size were decided by the plan of the house, of which they really formed a part. The house was sometimes arranged as a square, with a court in the middle, or as an "E," "H," or "L," shaped plan, as No 41, the central wing often consisted of the entrance porch only, leaving the end wings to project a long distance beyond. In the "H" plan the recess at one end was often used as the carriage court, and the one at the other end as kitchen court. In the "L" plan the court was protected on one side only. At Blicking Hall, Norfolk, there is an inner court, the space for carriages being between the stables on one side and the offices on the other. In many cases there were two carriage courts, a plan which has been adopted for Graythwaite Hall (Ill. No. 43), and which may in future have to be resorted to in many places where the existing court cannot be enlarged. In the planning of a modern house this is seldom done, the chief entrance being on the line of the main block, or at the end of a projecting wing, with no building whatsoever to flank either side of the carriage turn, and usually no terraces on the entrance side; the park, pastures, and natural portions of the grounds being allowed to run up to the edge of the gravelled carriage space. This change of plan is probably responsible for the curved or circular form of court, the absence of architectural limitations giving the landscapist an opportunity of introducing his curves, as in illustration No. 41. This feature is one of the most sensible things he has ever devised, because the shape, if well considered, indicates the lines which a carriage would most naturally follow when driving to or from the front entrance.

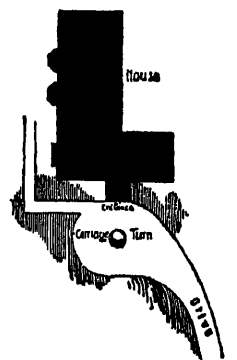


FIG 41.

In certain recent examples, especially where Georgian traditions are followed, there is a tendency to return to the architectural carriage court, by enclosing the remaining side with gate-houses or high masonry, as at Wood, N. Devon (Ill. No. 25), and at Thornton Manor, where the carriage court is enclosed from the public highway by the gatehouse illustrated in Nos. 16 and 17. In others a pleasing and protected court is formed by projecting the kitchen wing on

one side (the windows being arranged on the opposite side), and the billiard wing on the other, frequently enclosing nearly the entire court. This desire for a well-screened carriage court is eminently sane and practical, and if this cannot be obtained by any other means, the enclosure should be protected by hedges or even climber-covered trellis

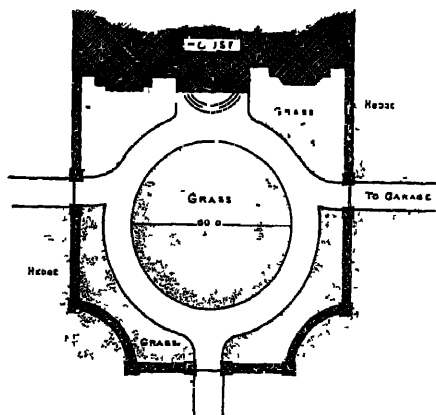


FIG 42

surrounded by level grass, a gravelled space of 45 feet by 65 feet would suffice. These are medium widths, quite apart from the amount of gravel space suited to the position which the court or carriage turn occupies. *Æsthetic* considerations, taken in conjunction with the special requirements of each particular case, will determine the size as well as the placing of the carriage court. To lay down rules for universal adoption would be useless. The scale of the entrance facade of the house is, of course, the predominant factor, while the contours of the surroundings and other local influences, as well as the nature and amount of traffic, will need consideration. Again, where the drive is not broad enough to allow two strings of vehicles to pass one another easily, as may often be the case in very short drives, it may be necessary to give additional room for vehicles waiting their turn to leave the court. In very few instances will provision for the inclusion of flower beds be necessary, the functions of one carriage court usually demand a clear line of demarcation between the approach and the pleasure grounds. Where space permits, nothing looks better than a combination of grass and gravel as in Nos. 42 and 49, a treatment seen to perfection in many of the stately homes of England. Secondly.—The courts or turns should be level, or with slope only sufficient to throw off surface water. What has been said elsewhere with reference

Whatever the form adopted, there are three conditions which should be carefully observed First.—The area of gravel between walls should be much greater than when the court is surrounded by grass, not less than 60 feet by 80 feet if to accommodate motor cars; if

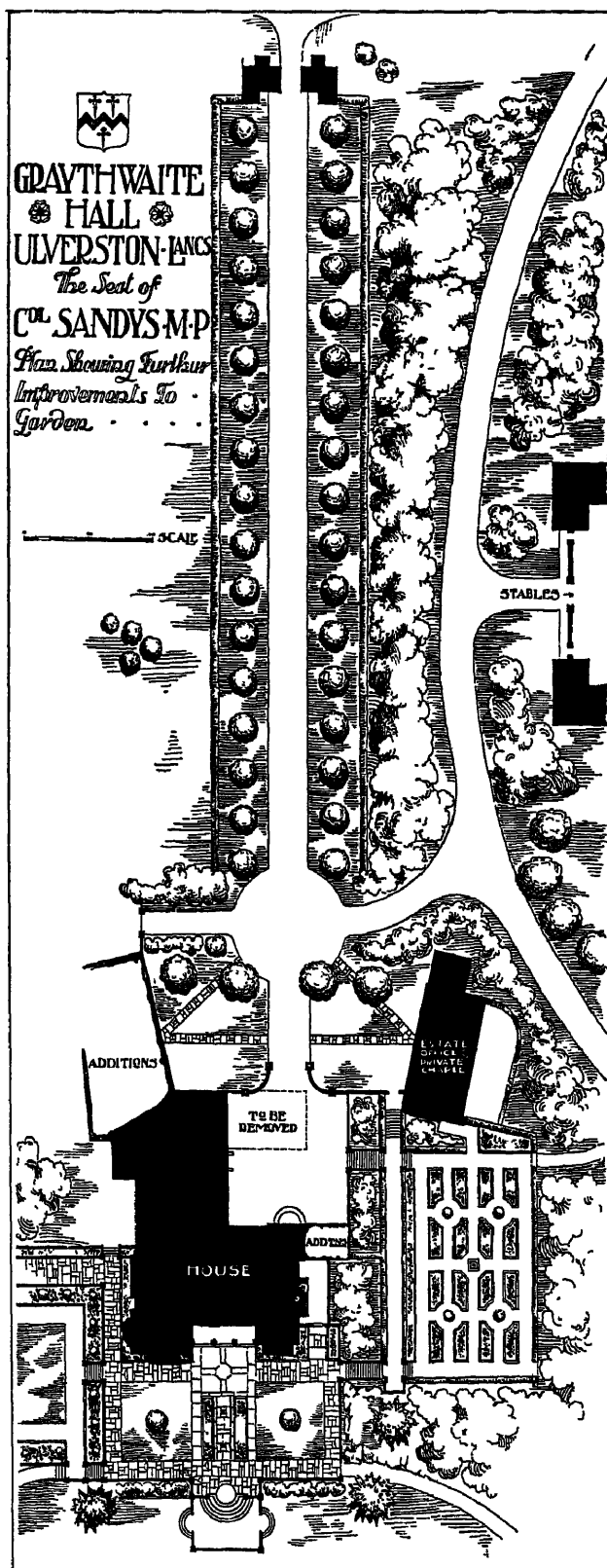


FIG 43

*Shelter for  
drivers.*

to the necessity of a level base for the house to stand upon by means of terracing, bear equally upon the planning of carriage courts. What is done for the garden front by the former, is accomplished for the entrance facade by the latter, and, even though

## ENTRANCES AND CARRIAGE COURTS.

giving the carriage court a level base should make it necessary to curtail its dimensions. In emphasizing this necessity, it applies to the whole of the area or plateau occupied by the court. That the gravelled area for traffic must be flat, or almost so, goes without saying. Thirdly.—Recognizing that many country houses demand late hour service of motors and carriages, the comfort of chauffeurs and drivers should be considered by arranging ample shelter. This may often be simply secured by porters'

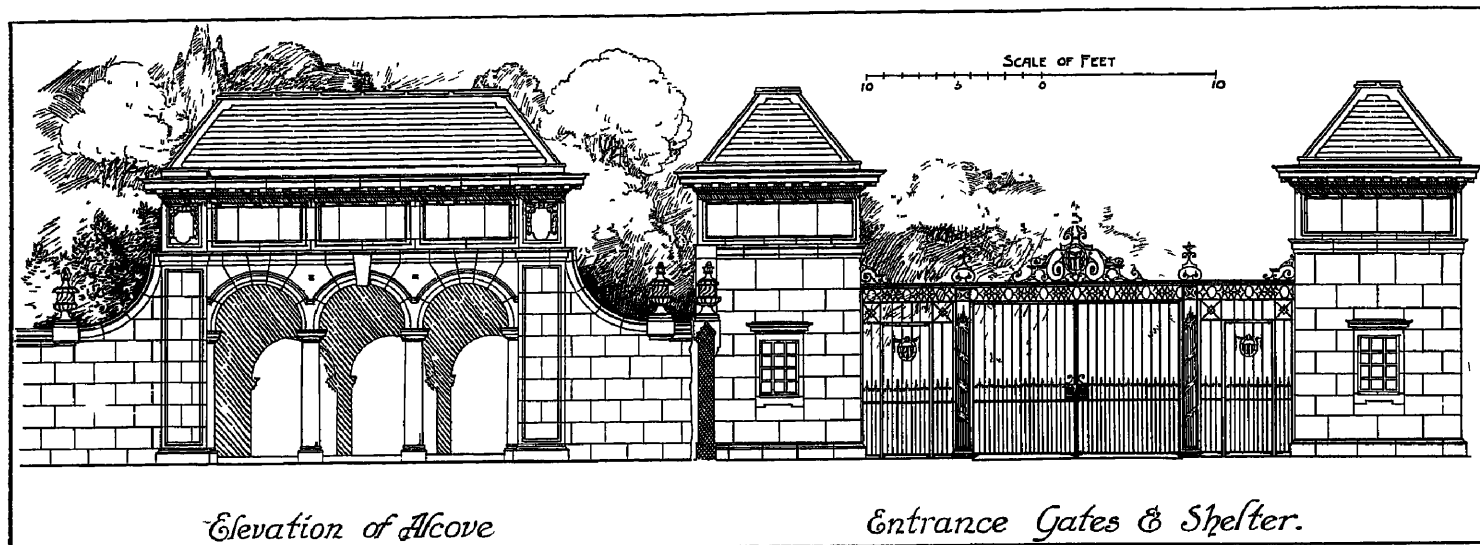


FIG. 44.

lodges, as proposed for Holker, and illustrated in Nos. 44 and 45. Where there are projecting buildings or high walls, architectural recesses may be inserted. These recesses are usually sufficient, but in very exposed positions they should be supplemented by masses of plantation, not high enough to give the house a buried appearance, but still effective in screening carriages and the porch. Provision for the shelter of drivers while waiting or in charge of restive animals which cannot be left, is a factor possessing

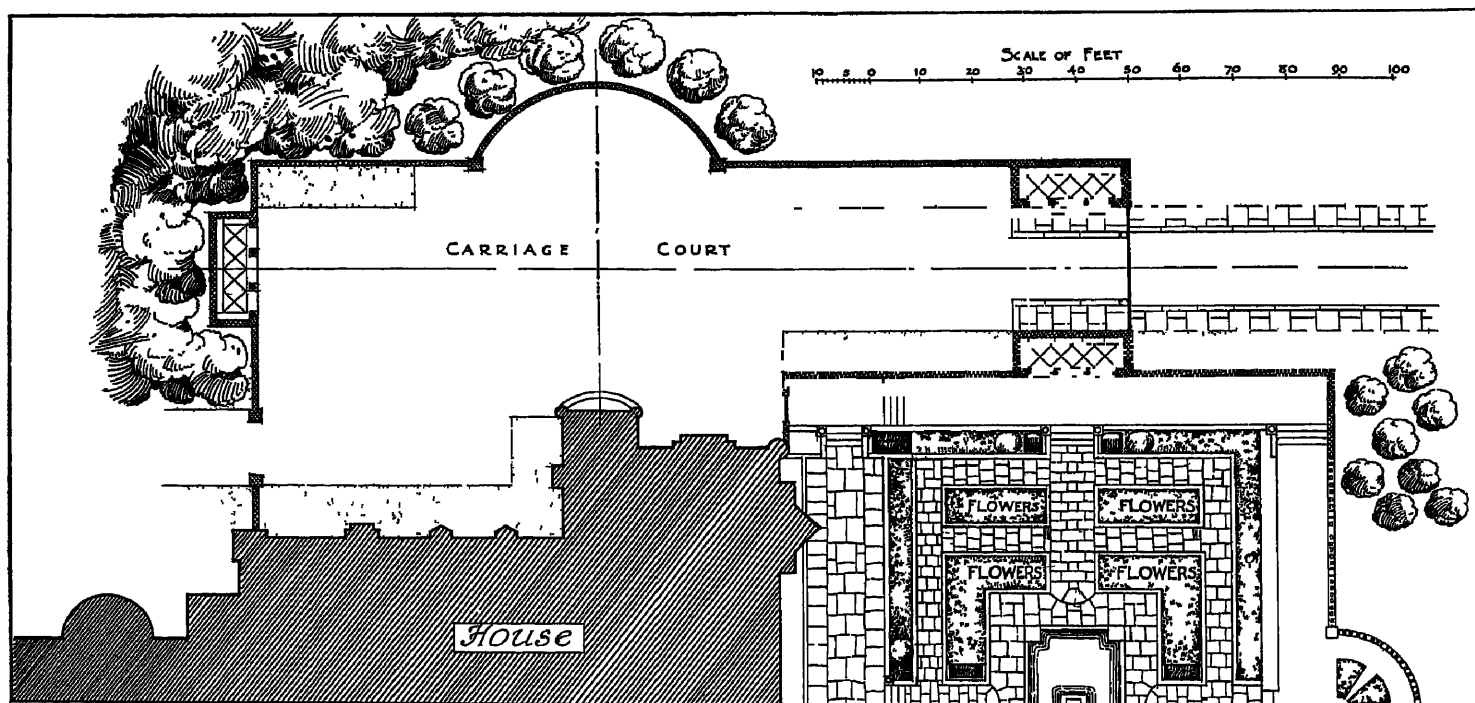


FIG. 45.

æsthetic possibilities. In cases where the court is enclosed by long blank walls an artistic break such as a canopied seat would relieve the monotony.

Residences are often built with entrances in such positions as to necessitate carriage turns which have steep banks falling away from them. Wherever this is so, even though wind screens may not be required, protection should be provided, as nervous horses are apt to be affected with a feeling of insecurity. At Capernwray Hall a thick



## ENTRANCES AND CARRIAGE COURTS

yew hedge five feet high was planted, with yew pillars every twenty feet, on the top of the slope which runs full length and across one end of the carriage turn (Ill. No. 46). This simple addition is all that is required to make this dangerous-looking carriage space appear perfectly safe.

Most of the garden plans illustrated in this work include a carriage court. A study of these, together with the accompanying sections and descriptions show why each particular form is adopted.

In many places it is advisable to dispense with a drive or carriage court, such as small houses placed on small plots of land, because the privacy of a garden, and even the possibility of a garden, are often destroyed by the ground thus monopolised. In my own garden, which is little more than an acre in extent, a drive would have practically monopolised the garden, whereas, by placing the house near the road, a space of ground on the south and west compensates for the occasional short walk

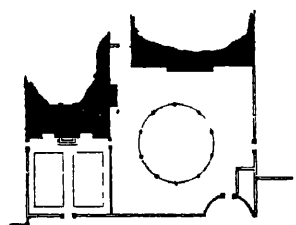


FIG 47




FIG 47

Where a house is placed near a public road, an arrangement on the lines of the carriage court at Chiswick House (Ill. No. 47) would be advisable, or better still, a court the entrance to which can be set well back from the line of the roadway, as on the accompanying sketch (Ill. No. 49) There are cases where, even though the house

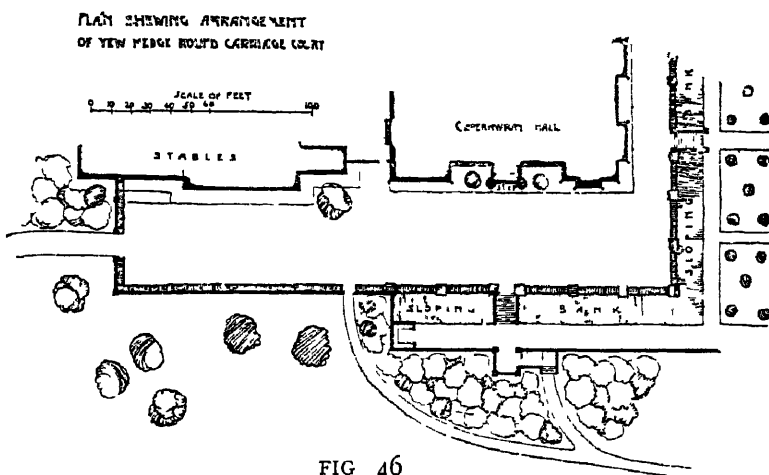


FIG 46

*Small  
gardens  
better with-  
out drives.*



FIG. 48—PAIR OF LODGES AT KEARSNEY COURT, DOVER, FOR E. P. BARLOW, ESQ.



## ENTRANCES AND CARRIAGE COURTS

may be further from the road than in either of these examples, it may still be desirable to save the space which would otherwise be given up to a drive and carriage turn and connect the highway with the house by a covered way. Such instances occur where the windows of the entertaining rooms are so placed that they would be overlooked from the carriage, or again, where the disposition of the house on the site would otherwise prevent privacy in the pleasure grounds. In the suburbs of large towns where land is too expensive to allow of large grounds, much is gained and nothing lost by dispensing with the "carriage sweep," as it is called, and substituting for it a covered way connecting the house with a carriage stance obtained by recessing the boundary wall. By a proper attention to the details of the covered way, a delightful cloistered effect can often be given to the garden on one or both sides of it.

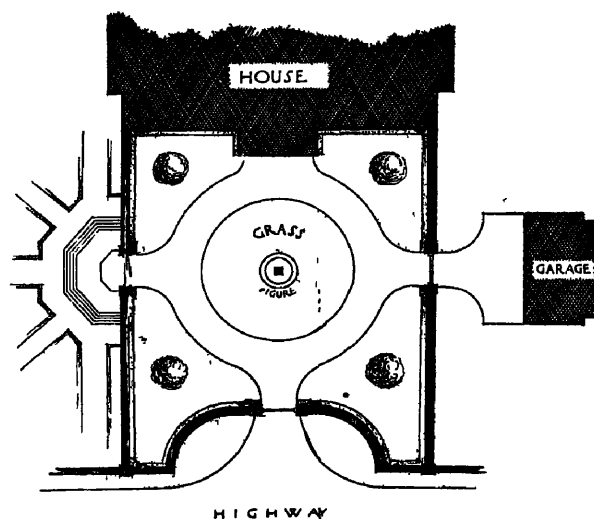
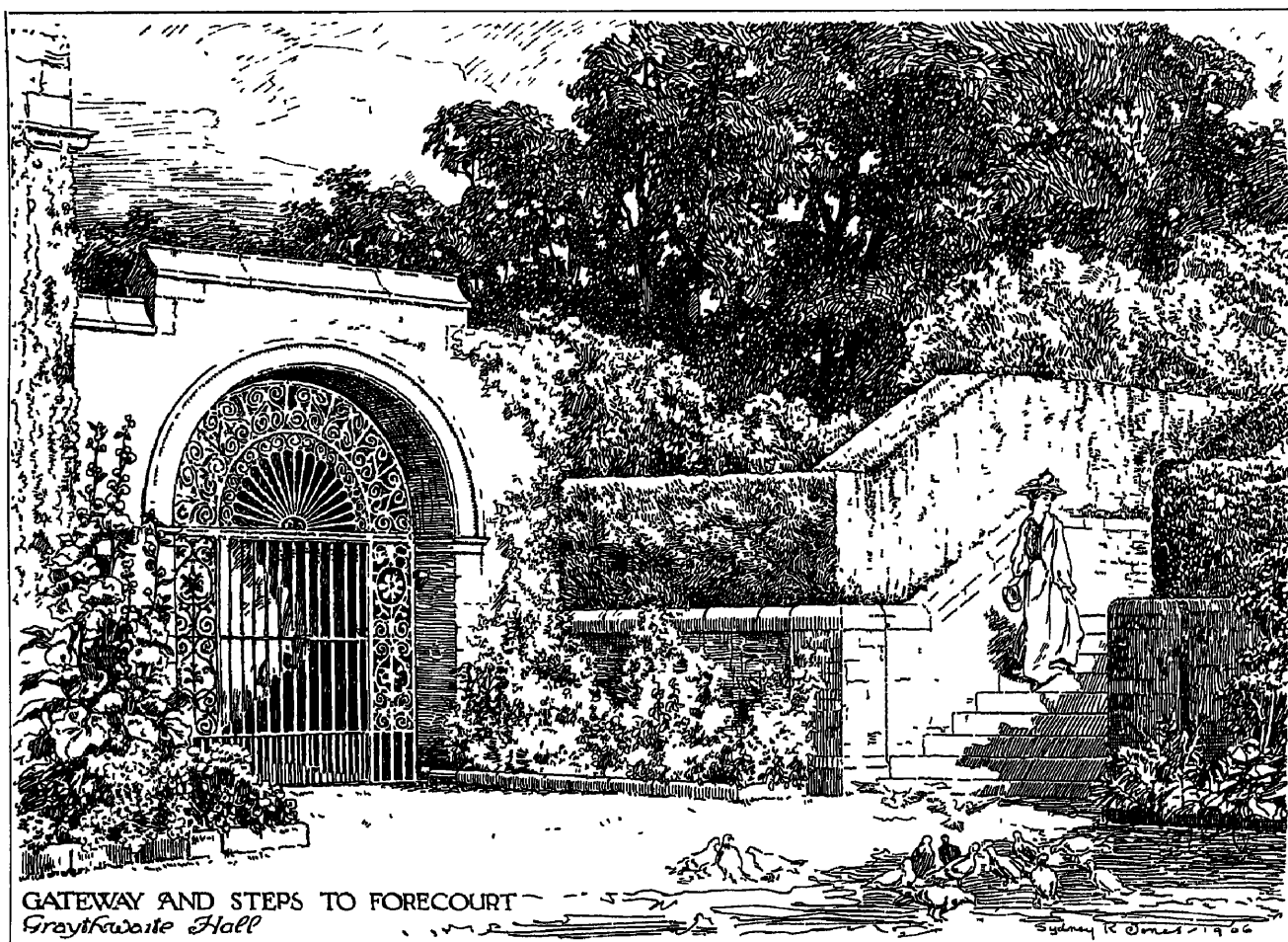


FIG 49





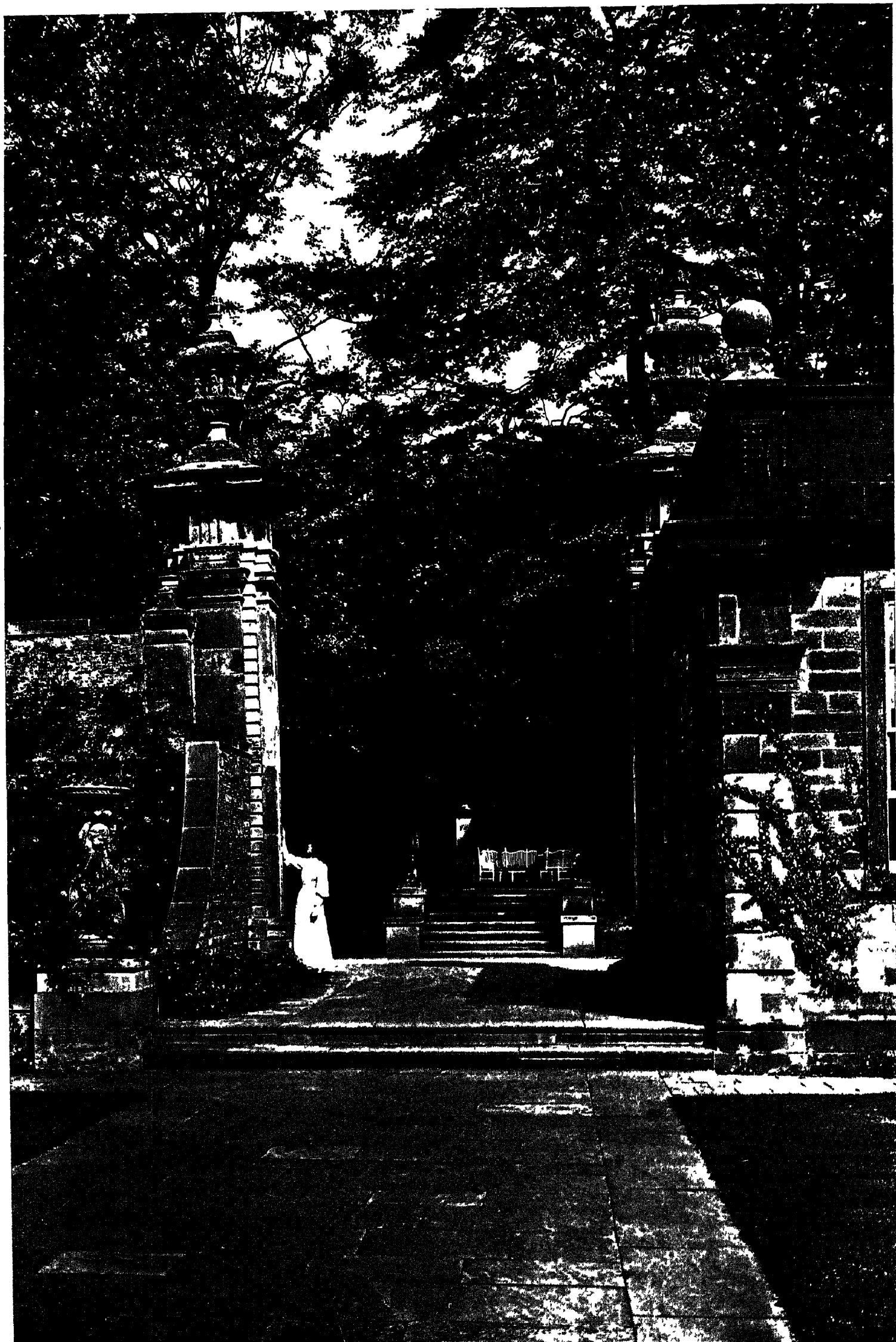
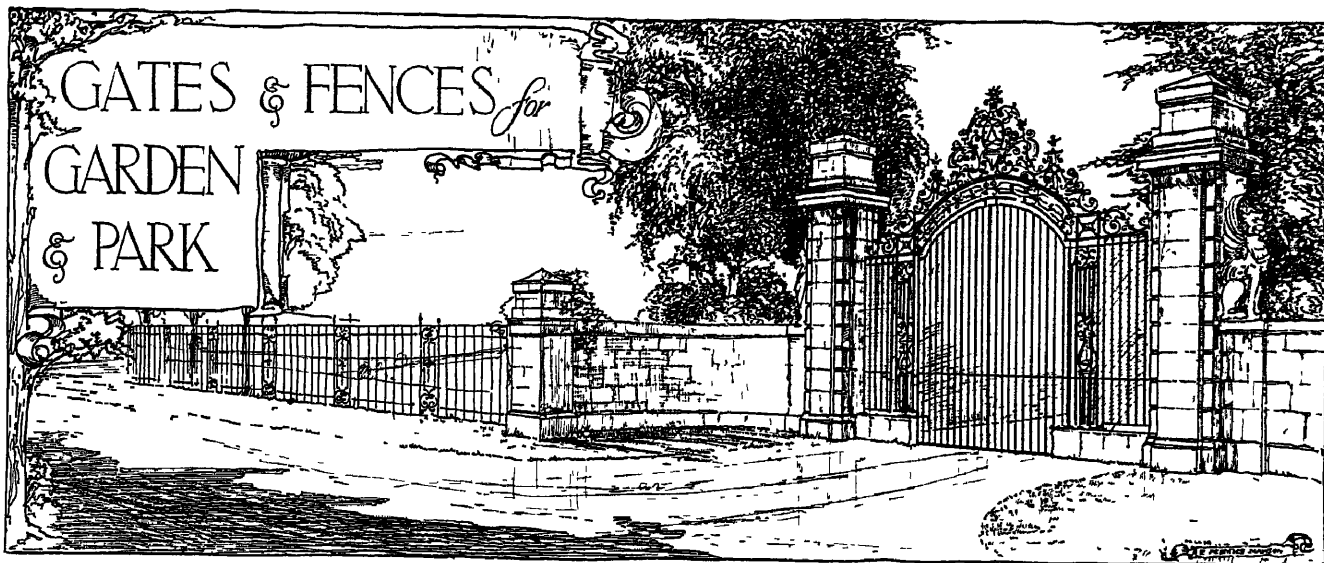


FIG. 50.—ANCIENT GATEWAY AT FARFIELD HOUSE.



## CHAPTER V.

In this chapter it is proposed to discuss the planning and design of those gates and fences which could not be included in the previous chapter. These two features offer endless possibilities for effective treatment, and it is not too much to say that whatever the material employed, there is no case where either a gate or a fence is required about the estate which will not allow of the exercise of taste in its design and arrangement.

In gardens attached to historic mansions care is usually exercised in these matters; in other cases it is often found that the necessary fences and gates are placed anywhere convenient and selected from the wholesale manufacturer's catalogue. Without impairing their usefulness in the least, they ought to be arranged to enhance the beauty of the grounds they enclose or partition. Gates may advantageously mark the end of a vista, or by judiciously using open panels may half reveal and half conceal the beauties of the garden. Fences or other parts of a terrace scheme or pergola may serve to lead the eye forward along a vista, and may support festoons of climbing roses or otherwise help the garden composition.

*Æsthetic possibilities of gates and fences.*

In the old gardens gates and fences were used ornamentally, their skilful design and clever craftsmanship being doubly pleasing because legitimately applied. In new gardens it is equally desirable to give character and distinction to such details by attention to their design and placing. This does not mean that they be loaded with ornamentation, but that they be designed to harmonize with their surroundings.

There is the choice of an infinite variety of materials in fences, such as wood, stone, brick or iron, singly or in combination, suitable for every position; besides which there are hedges of many kinds, and the sunk fence or ha-ha for occasional use in special circumstances.

Local conditions mostly determine the character of a fence, especially in the smaller garden or the more remote portions of larger ones. Whether they are elaborately finished or rustic depends upon relation to the residence and the purpose to be served. Too much can scarcely be said in favour of the old-fashioned hedgerows in districts where they thrive; where stone is plentiful, and other conditions are favourable for a combination of the two, stone dykes, for example, surmounted by hedges, or hedges planted in the open, with walls where there are overhanging trees.

The endless variety of trees which make compact hedges warrant their inclusion in any part of the domain. They are dealt with in the chapter devoted to formal and clipped trees, and it will be sufficient here to protest against the somewhat unaccountable custom of demolishing all internal fences on new property. Of course, if a tall prominent hedge cuts right across the prospect, destroying the views and competing with the vistas, it must be removed and something less obtrusive put in its place, but

*Destruction of fences on new property condemned.*

## GATES AND FENCES FOR GARDEN AND PARK.

in most cases there can be no more mistaken policy than the removal of the hedges on new estates in the attempt to gain breadth. Unless the area under treatment is most exceptionally fortunate in the amount and disposition of its timber, the result will be not breadth but desolation, and that sense of barren newness which is to be avoided. When the local features of a district are destroyed, we have instead

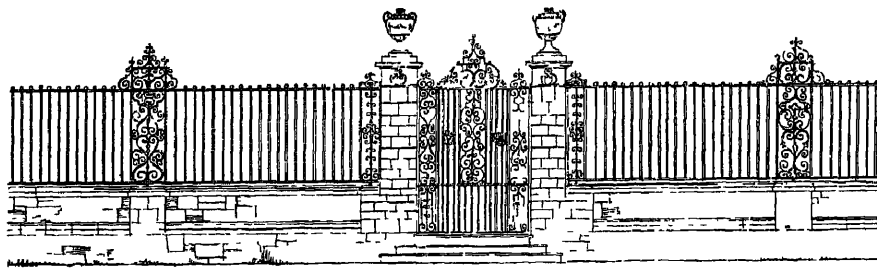


FIG 51.

oftentimes little more left than an expanse of wind-swept land without protection for stock in stormy weather, or shade in heat. Far better would it be to wait until the newly-formed plantations have more or

less matured, when the gradual rearrangement of the fences may be undertaken without even temporary disfigurement of the estate.

*The ha-ha fence.*

Estate owners are not usually averse to walls or hedges to screen them from the public highways, and yet they fail to see the equal necessity for a definite line of

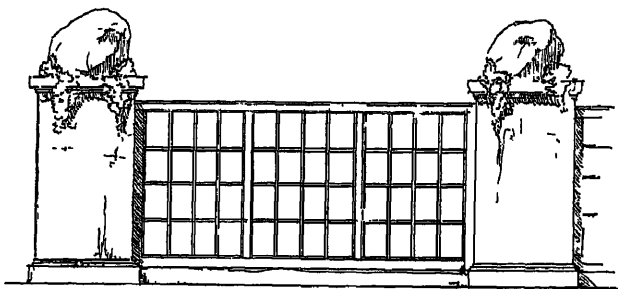


FIG 52

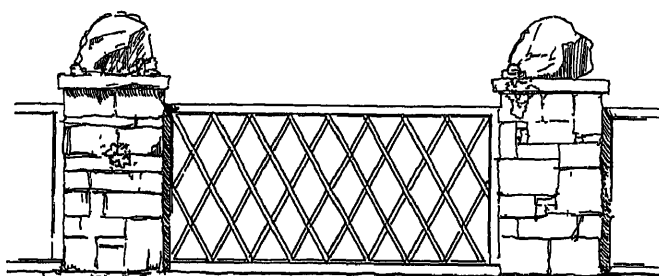


FIG. 53

demarcation between portions of the estate serving different and even æsthetically incompatible purposes. It was as a result of this dislike of internal fences, that gave rise to the ha-ha or invisible sunk wall, the idea being to make the meadows appear as part of the garden. The result was that the house appeared to be placed in the middle of a field without protection or privacy. There are exceptional cases where the ha-ha may be successfully employed, but generally speaking it is to be avoided. All tricks played upon the senses,

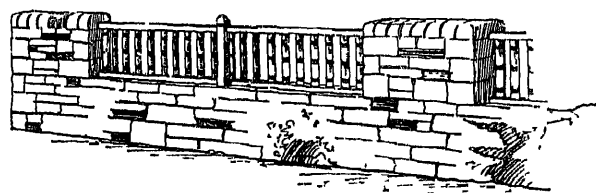


FIG 54

when discovered, are anything but pleasing, especially in those numerous instances where the small fence degenerates into an untidy ditch. In most instances it is a poor excuse for unwarrantably curtailing the extent of the gardens, creating the impression that the cattle in the meadow have access to the grounds and the precincts of the house.

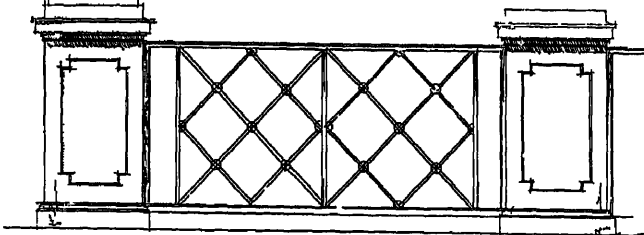


FIG. 55

The principle applicable to fences and everything else in a garden is, that instead of being a sham or a make-believe, everything should honestly

express its functions, and its artistic qualities should be inherent and not superimposed. In every case the purpose or purposes of the fence should be recognized, such as screening a public road, protection from winds, dividing two estates or portions of the estate or gardens, or for training fruit trees, and that character of

fence should be adopted which best fulfils the requirements of the case and the prevailing architectural conditions.

## GATES AND FENCES FOR GARDEN AND PARK.

Many of the plans illustrating this work shew the ornamental grounds almost entirely fenced in by the terrace and fruit walls. When the house stands in its own park, this is the most economical arrangement, as the balustrade necessary to grace the terrace serves the double purpose of ornament and use. Where the lawn extends beyond



FIG. 56.—BOUNDARY FENCE AND GATE, THE HILL, HAMPSTEAD, ADJOINING THE HEATH.

the terraces, some form of enclosing fence becomes necessary, which need not by any means be a solid wall but should be substantial enough in appearance to give the impression of adequate protection against the inroads of cattle and suggest seclusion from the outer world. An open arrangement which does not seclude the park nor cut off the view will be preferable, and where the fence is straight and the ground fairly level, will not be difficult to obtain. A series of pillars in local stone or brick placed at regular intervals with the interstices filled in with wrought-iron or open wood panels, as in Nos. 52, 53 and 55, or, in more important cases, a dwarf wall with wrought-iron railings above, as in No. 56 would prove suitable. Local conditions and usage should suggest originality as in No. 57, the arrangement of slates and wires was suggested

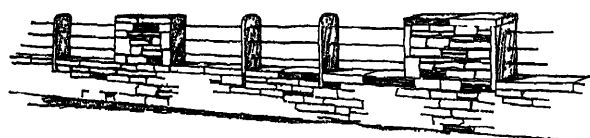


FIG 57

by the contrivances erected to prevent the hardy mountain sheep of the Lake District from escaping. In other places peeled larch might be used in connection with stone. Both forms produce quite a rustic fence only suitable for use at some distance from the residence; if wrought wood panels were used, as in No. 54, the effect would be more finished.

Where the ground is undulating and the fence follows the contours, a strong and simple pattern of continuous bar railing is suitable. What is known as unclimbable

*Fencing  
exhibiting  
local  
character-  
istics*

*Unclimb-  
able  
fencing.*

## GATES AND FENCES FOR GARDEN AND PARK.

fencing, especially the pattern adopted by various railway companies, should not be used unless a shrubbery or hedge is planted in front to mask it. Next to barbed wire or broken glass, nothing is more out of harmony with a garden than the spiked heads

*Strained  
wire  
fencing.*

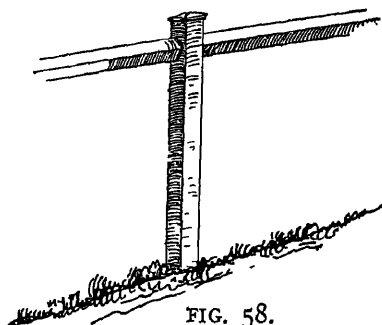


FIG. 58.

of unclimbable fencing unscreened by such a hedge as that just described. Strained wire as commonly used is quite unsuitable, though a nice fence may be made on the lines of the fruit espalier shown in No 355, with oak posts and top rail. This form of fence, arranged in straight lengths, is simple and effective, and allows scope for originality in the shape given to the heads of the posts. Another simple wooden fence, consisting of a post with a cut-shaped head and a handrail placed angle-wise, is shown in No. 58. This

form is particularly useful in the wild garden or at the side of a woodland path where the ground slopes away dangerously.

There are many positions where a solid fence or wall would be inappropriate, as when a rounded mound, forming the middle distance of an extensive view from the residence, is the boundary. In these cases a simple arrangement of post and rail, or post rail and wire, is serviceable.

*Peeled larch  
fencing.*

Another form of wooden fence, which is more suitable in connection with cottages or lodges than in the garden proper or the home park, is strong peeled larch unwrought posts, with top and bottom rail of same filled in with a lattice made from the same material split, the flat surfaces placed together as in No. 59.

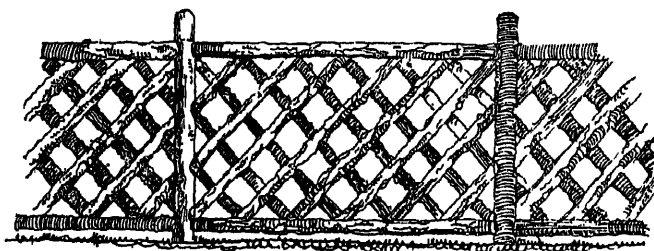


FIG 59.

*Oak  
cord-wood.*

A similar fence is often made from the smaller limbs of oak trees known as oak cord-wood, but, as these consist almost entirely of sap-wood, they will only last a very short time, and even pieces four inches thick will rot through at the ground level in the course of a very few years. The mistake made about this kind of oak is that it is lasting, which is fostered by the fact that, when new, it is often so hard that it is almost impossible to drive a nail into it. About the cheapest and most serviceable fence for cottage gardens is constructed of carpenter-made lattice framed between strong  $3\frac{1}{2}$  inch square posts, spaced five to six feet apart. The bottom rail should be three inches clear off the ground, and the top rail rounded on the top and grooved to receive the laths, which should be about  $1\frac{1}{2}$  by  $\frac{3}{4}$  inches thick and spaced eight or nine inches from centre to centre. The height should be about three feet six inches, and if not to be painted, the posts should be oak, otherwise larch or pitch-pine are better.

*Lattice  
fencing.*

Climbing roses, honeysuckle, and other flowering climbers can be most appropriately trained over it.

*Upright  
paling.*

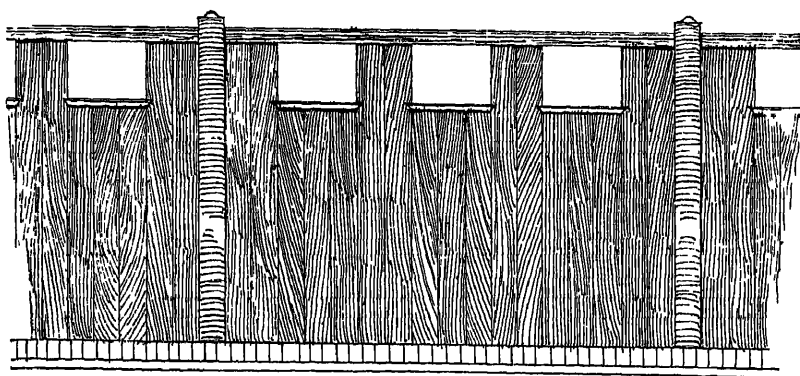


FIG 60

Another form of fence, with framework of similar construction, is the old upright paling, with the posts rising from the ground or off a dwarf wall. The uprights or balusters may be  $1\frac{1}{2}$  inches square, set angle-wise or square, or flat pieces about two and a half inches broad and three quarters of an inch thick with the top ends cut to a pattern may be substituted. The possible



## GATES AND FENCES FOR GARDEN AND PARK.

variations in the treatment of the details are unlimited. In Holland, the tops of the uprights are shaped and coloured to represent tulips or other flowers and the remainder painted white, but such fancies would appear exotic in this country, though ideas can be culled from the quaint Dutch gardens and also from Japanese examples. Travellers in the latter country speak enthusiastically of the artistic taste and clever craftsmanship displayed in the fences. Even the timest gardens are fenced by paling which, in character, is simplicity itself, exhibiting perfect taste in the spacing of the several parts, and the sizes and thickness of the woodwork—or woodwork and stone combined as the case may be—minute attention being given to details, and all without sacrificing in the slightest the durability of the work.

A distinct class of wooden fence is obtained by the use of split or riven oak, which is particularly appropriate in suburban gardens. It has the merit of being cheap when *Riven oak fencing.*

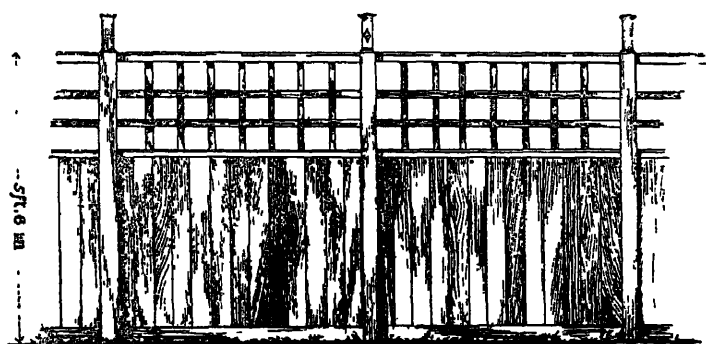


FIG. 61.

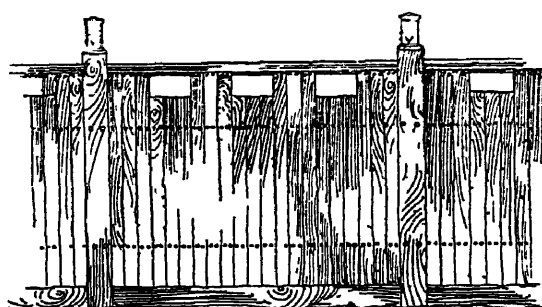


FIG. 62

its durability is considered, and looks picturesque when weather-stained, and particularly so when overgrown with climbers. As will be seen from No. 60, and also 62, the material allows of varied and original treatment, and some forms are decidedly ornamental, though the ordinary pattern, which, on the front side, shows nothing but a series of overlapping split battens arranged vertically and cut to the same height, will often meet all requirements. This simple pattern may be given a little more finish by cutting

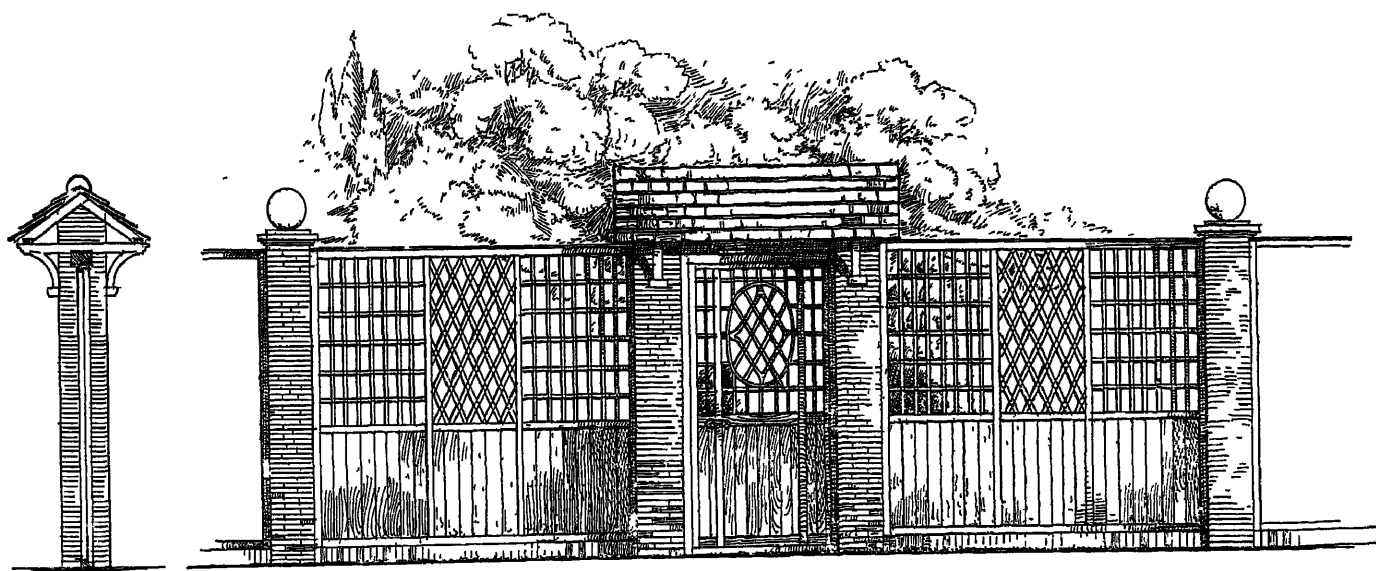


FIG 63.

the heads of the posts to a variety of designs; by the addition of an oak capping to the railing or by varying the lengths of the split oak splads. No. 62 shows a fence having all three features. A combination of split oak and oak wattles is shown in No. 61. No 63 shows much the same fence built between brick piers to screen off the kitchen garden from the garden proper, erected at Hoylake, Cheshire. Illustration No. 71 shews a very high fence needful to secure privacy from the public gaze erected near Hampstead Heath, in the gardens of The Hill, Hampstead, for Lord Leverhulme. In this case the split oak fencing rests on a brick base with high piers and caps at intervals.



## GATES AND FENCES FOR GARDEN AND PARK.

*Stone walls.* The design and arrangement of stone walls depend so much upon local conditions that it is impossible to do more than indicate a few main principles for general application. The delightful garden wall at Alton Towers, Staffordshire, which has been so often illustrated, for instance, though so appropriate to its surroundings, would be quite out of place in most circumstances. A wall if rightly placed cannot however fail to be pleasing in any locality in which there is local stone from which to build it, though a brick wall in a stone district or a stone wall where it is obviously an imported feature may be equally out of place. The prime cost, of course, will be higher than for a wooden fence or even ordinary iron railings, but it will also be more durable. It is dressed or tooled stonework which is so costly. For ordinary estate work, dry built walls (i.e. without mortar) provide all that is necessary, especially when the coping stone can be set in cement.

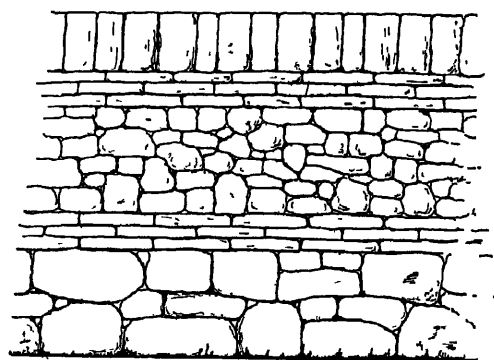


FIG 64

*Tasteful use of local materials.*

A well-constructed dry wall is always pleasing and each district has its own mode of building to suit the character of the local stone, whether quarried stone, slate, cobbles, rubble or flints, or a combination of any of these, with or without bricks or tiles. Where, for instance, cobbles, roughly-squared stone and slates, can be obtained, charming

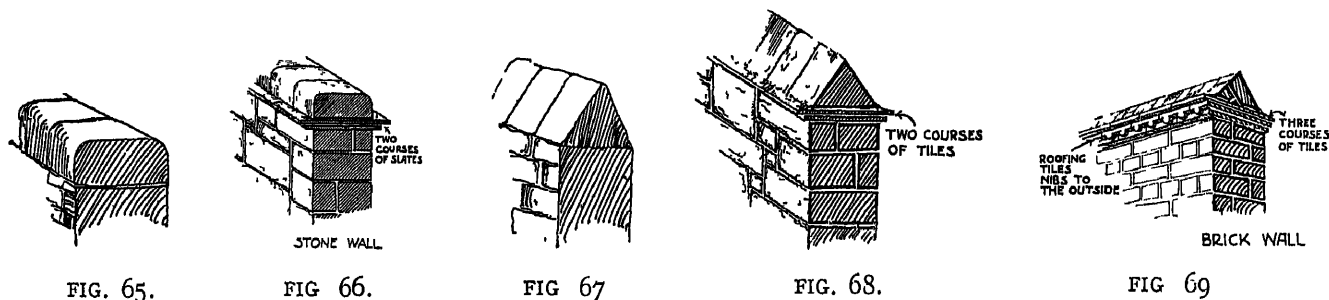


FIG. 65.

FIG 66.

FIG 67

FIG. 68.

FIG 69

effects may be produced by combining them, as in No. 64, and examples of such walls are often found along the Deeside in Aberdeenshire, a county in which walling has attained the rank of an art. Flints and stone, flints and brick, or flints, brick and tiles, may all be arranged in many tasteful and original combinations.

*Coping.* For walls nearer the residence, where a stronger construction and more finished appearance are necessary, squared rubble laid in mortar may be used with a hog-back

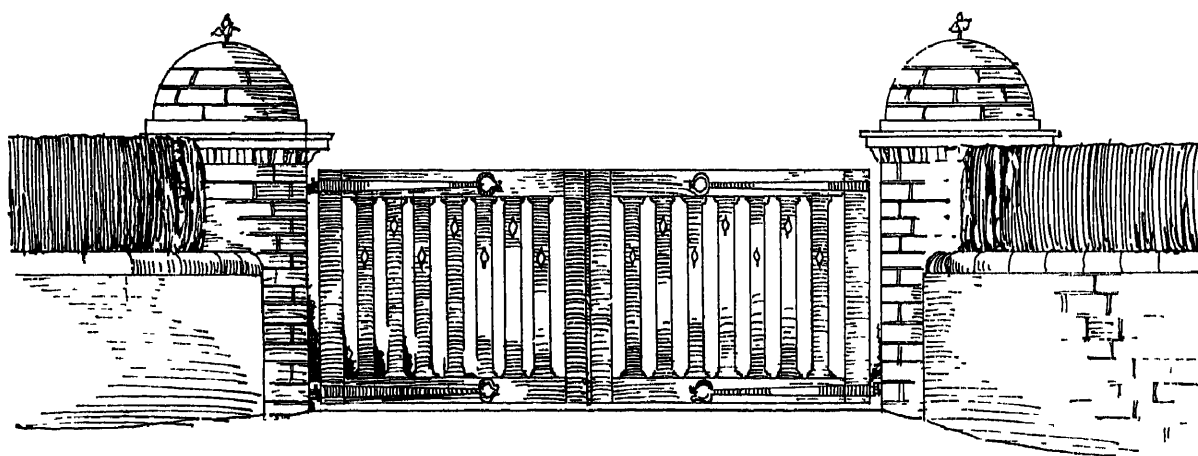


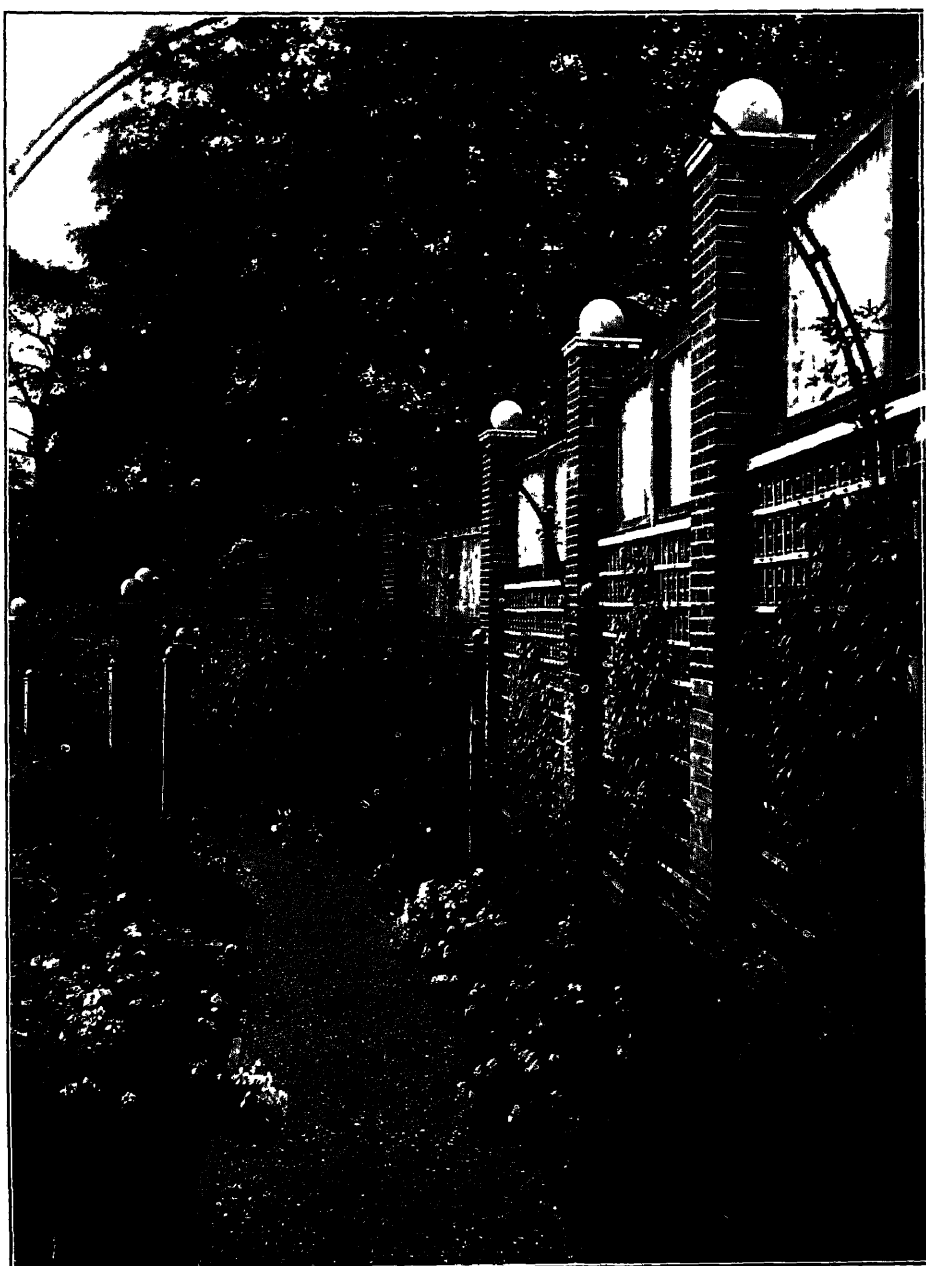
FIG. 70—SIMPLE WOODEN ENTRANCE GATES.

or rounded coping, as in No 65 or No 66, where two courses of slates have been inserted under the coping to give a little relief. No 67 shows a similar coping and No. 68 the same with two courses of tiles inserted. The two latter could be coped in brick where necessary, and instead of the two courses of tiles, there may be three courses, of which the middle one consists of roofing tiles placed so as to show the "frogs" as in No. 69, in order to obtain the effect of a dentil course cheaply.

## GATES AND FENCES FOR GARDEN AND PARK.

By the ingenious arrangement of roofing, paving and the many shapes of ridge tiles, quaint and effective copings may be evolved suitable for all sorts of brick walls, and in some parts of the country oval land-draining tiles are made with ribbed exterior surfaces which make a simple and effective balustrade. Open panels too may be constructed by piling curved ridge tiles in a symmetrical manner. In walls dividing small gardens or surrounding rose, fruit or other enclosed pleasaunces, some one or other of these methods may be adopted.

From the æsthetic standpoint it cannot be too strongly urged, that the least satisfactory boundary wall is that which is built of machine-made red bricks of even colour such as are common in Lancashire and North and South Wales. A deep-



*Brick walls.*

FIG 71—HIGH FENCING AT "THE HILL," HAMPSTEAD

coloured local brick not too even in shade is admirable, also the grey or brindled rough bricks, especially if only two inches thick. They make an excellent and inexpensive boundary or division wall between villa gardens.

Terrace walls, fruit walls, and the wing walls to entrances are dealt with elsewhere, but much that has been said of garden walls in general applies equally to them.

Wrought iron for garden fences has not of recent years received its just recognition, partly, no doubt, on account of the initial expense and partly because of the cast iron imitations of the old work. In the best periods of English garden design, wrought iron was always held as almost essential to its highest development, and might to-day be employed frequently in garden improvements. It is suitable to fence the forecourt of a Georgian residence from the highway, as at No 51, where it is desirable to hide as little of the facade as possible. In such cases the fence should be perfectly simple with the ornamental emphasis occurring seldom and concentrated

*Wrought-iron fences.*

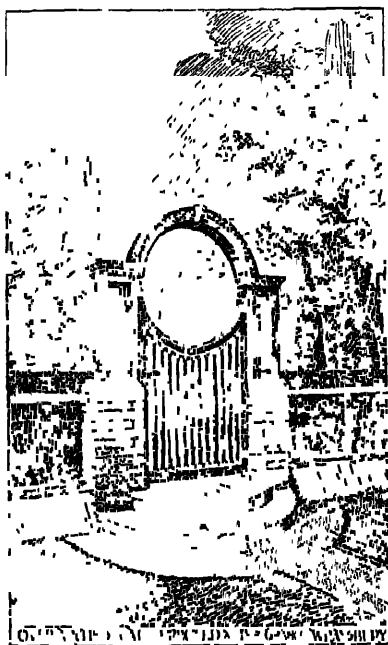


FIG 72.

GATES AND FENCES FOR GARDEN AND PARK.

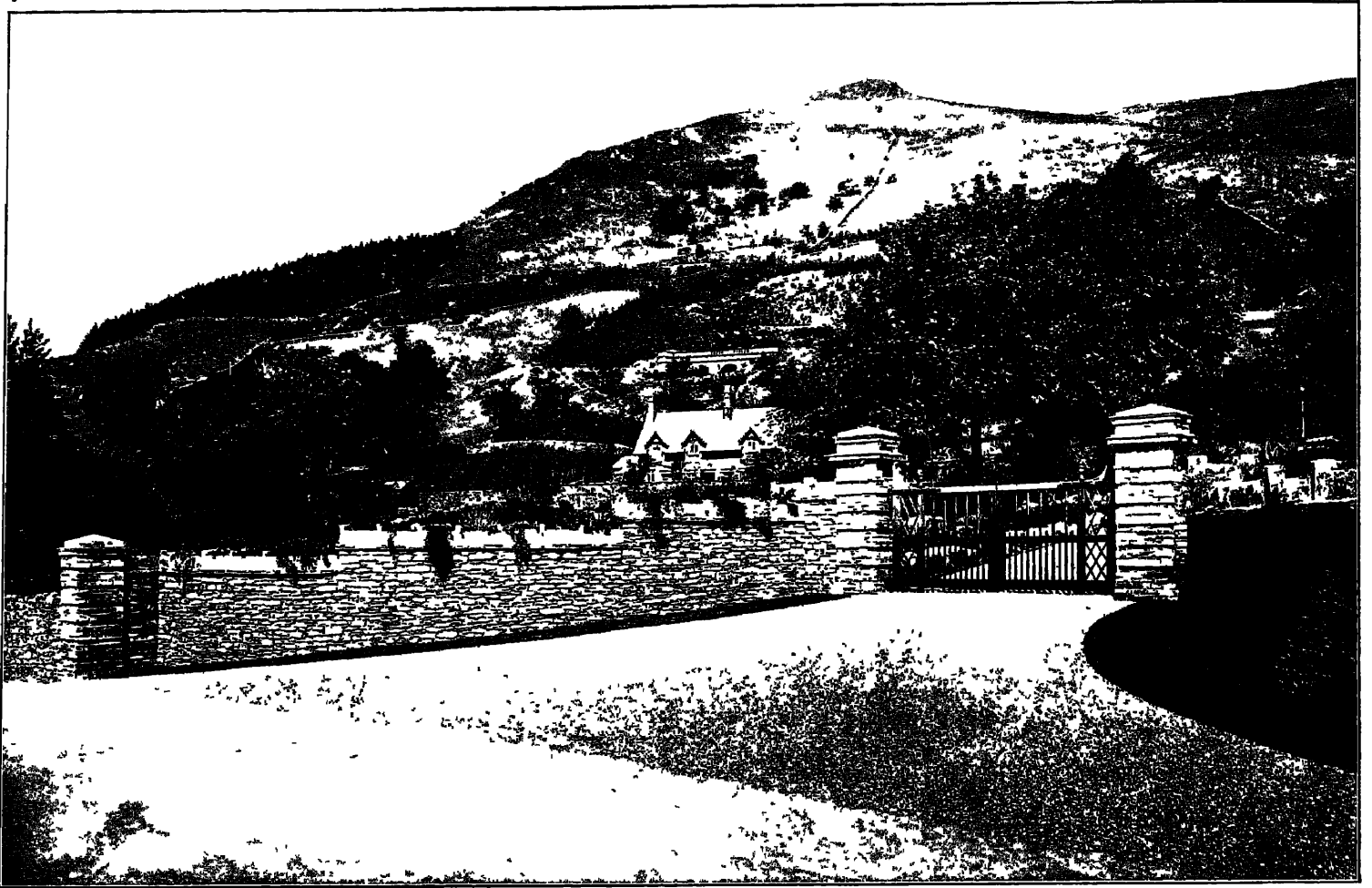


FIG. 73.—WALL AND ENTRANCE AT ABOVE BECK, GRASMERE, LOOKING NORTH.

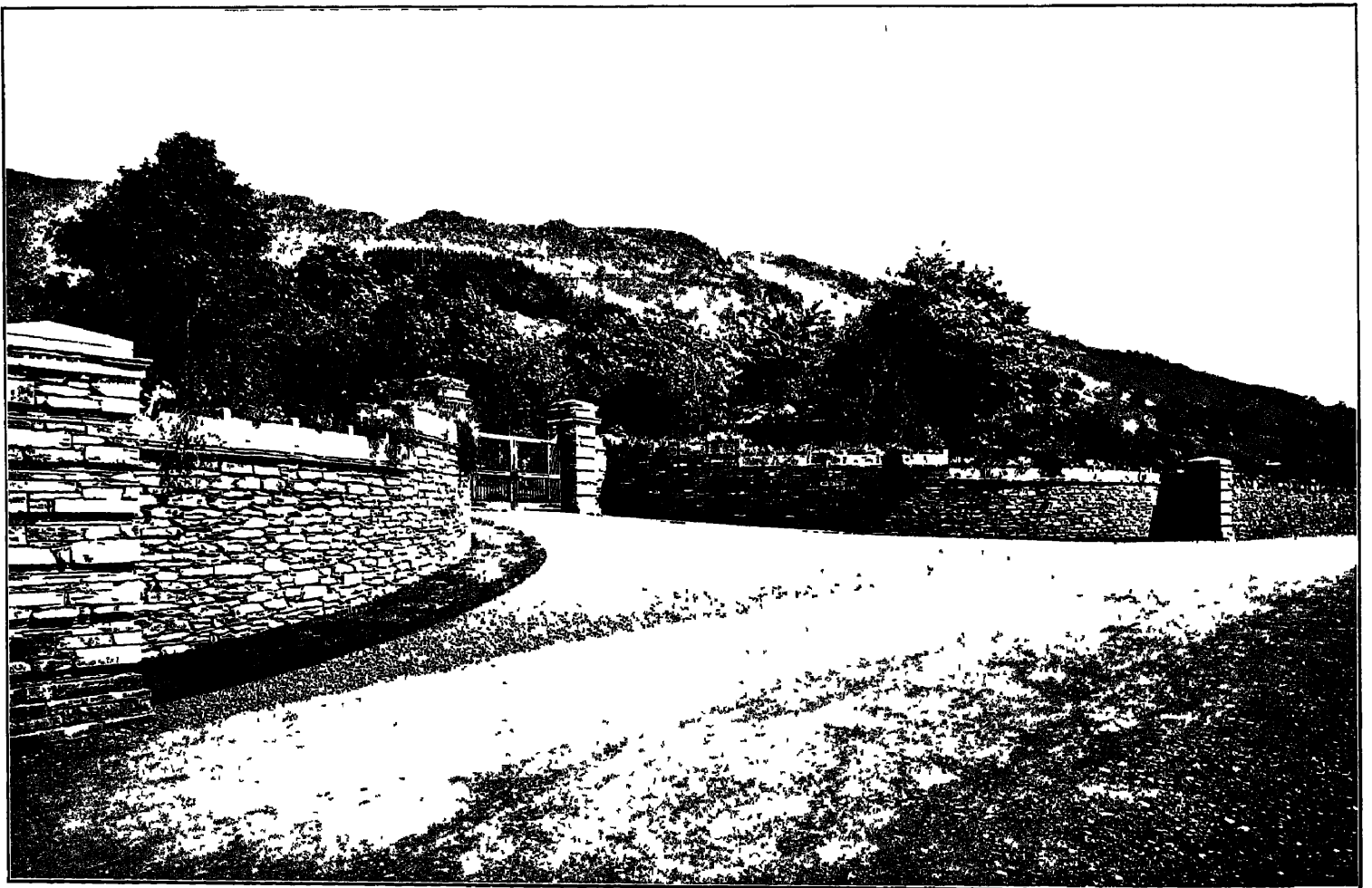


FIG. 74.—WALL AND ENTRANCE AT ABOVE BECK, GRASMERE, LOOKING SOUTH.

## GATES AND FENCES FOR GARDEN AND PARK.

at special points to pronounce the main lines of the composition. This result is most often attained by reserving the ornament for pilasters or gates, as in the design just referred to.

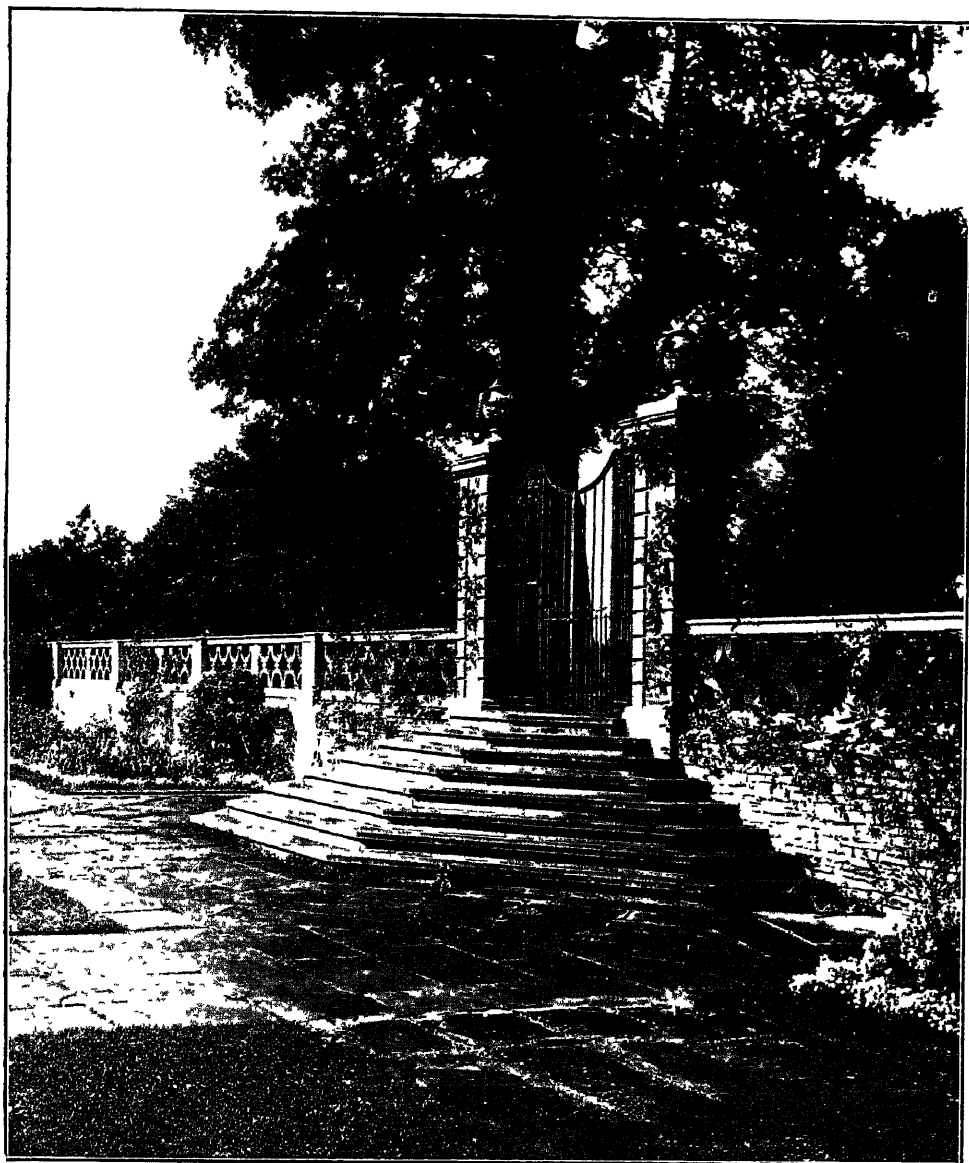


FIG 75 —GATEWAY AT HARTPURY HOUSE, GLOUCESTER.

treatment of the surrounding details, and the second (Ill No. 70) would answer for a cartway entrance to the home park from somewhere on the route of the main drive or other rather prominent positions.

Reference to any of the plans in this book shows the importance of postern and other small gates in a well-designed garden. As to the character and design of individual gates, everything depends on the position and importance of the walks to which they give access, and the style of the residence to which they lead. The steps and gateway at Hartpury House, near Gloucester, shown in illustration No. 75, occupy a position on the central axial line through the house, and are placed on the terrace which divides the old garden from the new extension, a position which justifies the ornamental treatment adopted. A similar gateway in a balustraded wall to that shown in illustration connects the carriage court with the park; the importance of the residence demanding such an arrangement. To mark divisions between the various parts

Having thus briefly sketched the more important of the various kinds of fences which may be used in the garden, we may now consider the gates to be used in conjunction with them.

Large entrance gates are dealt with in another chapter, and the number of folding gates which are required for other situations is more or less restricted, so that it has only been thought necessary to give designs for two, one in iron and the other in wood. The first, No 75, was designed as part of the scheme for laying out gardens at Hartpury House, the architecture of the mansion demanding a quiet

*Large entrance gates.*



*Postern gates.*

FIG 76

## GATES AND FENCES FOR GARDEN AND PARK.

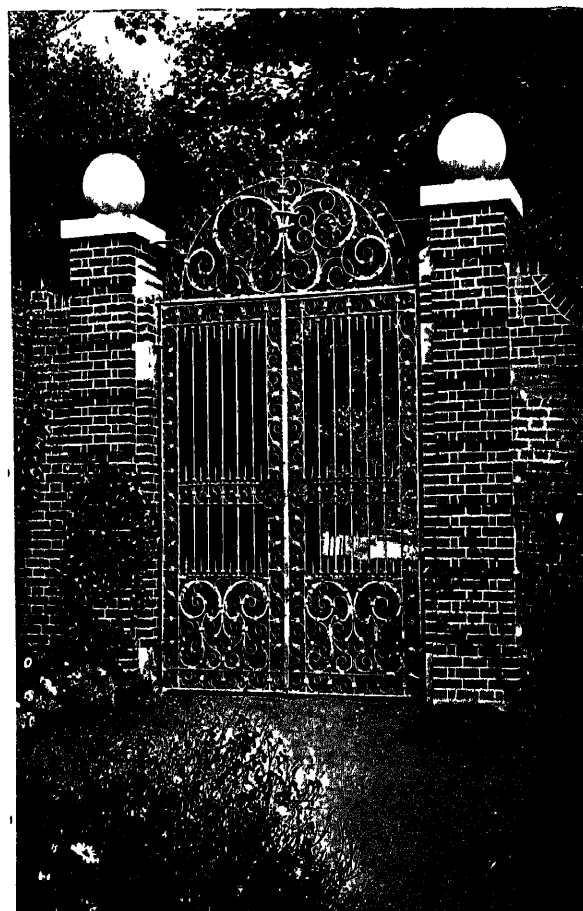
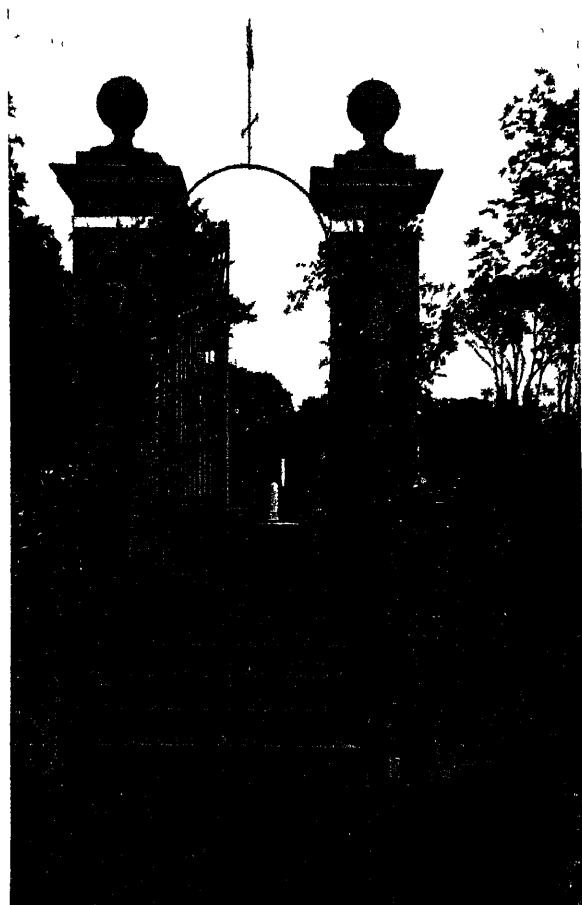
of a garden, quaint lych-gates may be used, or little gatehouses which may upon occasion serve the double purpose of arbour and gate canopy. In other cases, where simplicity is demanded, either of the gates shown in Nos. 72 and 76 would answer. The first of these was erected at Wraysbury, near Staines, and connects the lawns and paddock. It is more elaborate than usually required for such a position, but was justified by its surroundings. In other cases, the one shown in No. 76, and erected at Shrublands, Windermere, would be more suitable. The gateway No 51 with the open railing; the gateway illustrated in No. 63 with the overhead arrangement, and side panels, the one at Skibo Castle designed for Andrew Carnegie, Esq. (Ill. No. 77); are all modern examples of gates on which smith or carpenter has exercised his craft, and all are arranged to mark divisions between parts of gardens. Nos. 78 and 79 are antique Spanish wrought-iron gates re-erected in an English garden

*Garden doors.*

Garden doors for arched openings in fruit walls, or the fence to the public highway are often required, and for their design and arrangement we have ample precedent in the old English walled gardens. There is a plain but delightfully proportioned one at Melbourne Hall, Derbyshire, the seat of Admiral Lord Walter Kerr, and another rather more



FIG 77



FIGS. 78 AND 79.—ANTIQUE GATES ERECTED IN AN ENGLISH GARDEN.

elaborate, and designed in the classic renaissance style, at Woolhampton Hall, Berkshire. Those shown in Nos. 347 and 348, were erected in gardens by the author, designed



FIG 80 —YARD ENTRANCE AT HANNAFORD, DEVONSHIRE

in the spirit of the old work. In this class of door more than any other it is impossible to use stock designs. Every site needs individual treatment, and the most should be made of the individual note. Where the door gives access from the highway, a sense of privacy is required, as it would be the entrance for members of the household only; where it gives access to a walled garden for roses or old-fashioned perennials, after the style of the old examples, a glimpse of the brilliant colour masses within might be obtained through open panels or over the door, which might not in this case be made high

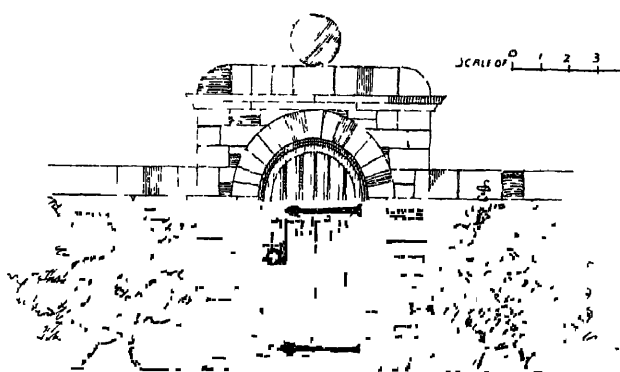


FIG 81.

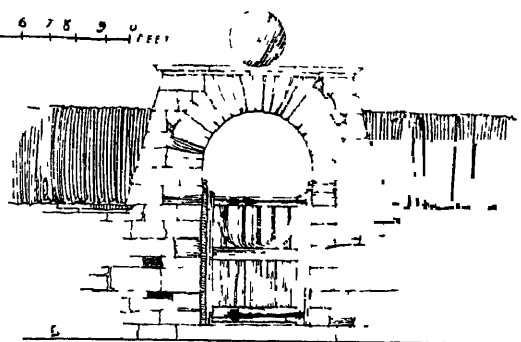


FIG. 82.

enough entirely to fill up the arched opening. For such doors oak is to be preferred, and if possible English oak, which is more durable and weathers a rich colour; American oak comes next in order of durability. Teak is also suitable, as it is lasting, but most people prefer the appearance of oak when weathered.

Before leaving the subject of garden gates four designs are given for small entrances to little gardens. The first two, Nos. 81 and 82, are arched over, No. 81 being intended to be built in local stone, rough punch and hammer dressed, and No. 82 being

*Gates for  
little  
gardens*

## GATES AND FENCES FOR GARDENS AND PARKS.

*Gates for  
little  
gardens.*

designed for building in rough slate or other material with natural cleavage lines, the ball over the gate being the only wrought portion.

The other two remaining gateways, Nos. 83 and 84, are simpler still, and have been designed with a view to strict economy. All four lend themselves well to use in the outlying portions of large properties, and would be quite suitable, for instance,



FIG. 83

as entrances to a wild garden, park or paddock, and places not strictly within the ornamental grounds.

The subject of gates and fences has been specially dealt with, in the hope that more care

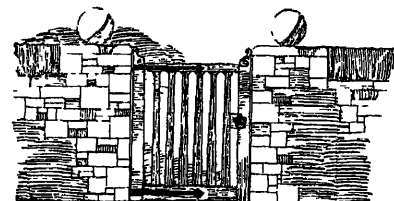


FIG. 84.

and thought may be bestowed upon them than has been in the past. It is hoped that estate owners, instead of surrendering inevitably to the fence-maker's catalogue, will, by the aid of the examples given, be helped to evolve designs which shall have the merit of individuality and special suitability to the needs of the particular case. It is usual to undervalue that which is easily accessible, and to value that which is exotic and remote, and in no case has this tendency been more pronounced than in the design of gates.



FIG 85.—SERVICE COURT AT BIDSTON PRIORY FOR JOSEPH BIBBY







FIG 86.—ENTRANCE TO DRIVE, WOOLLEY HALL, MAIDENHEAD

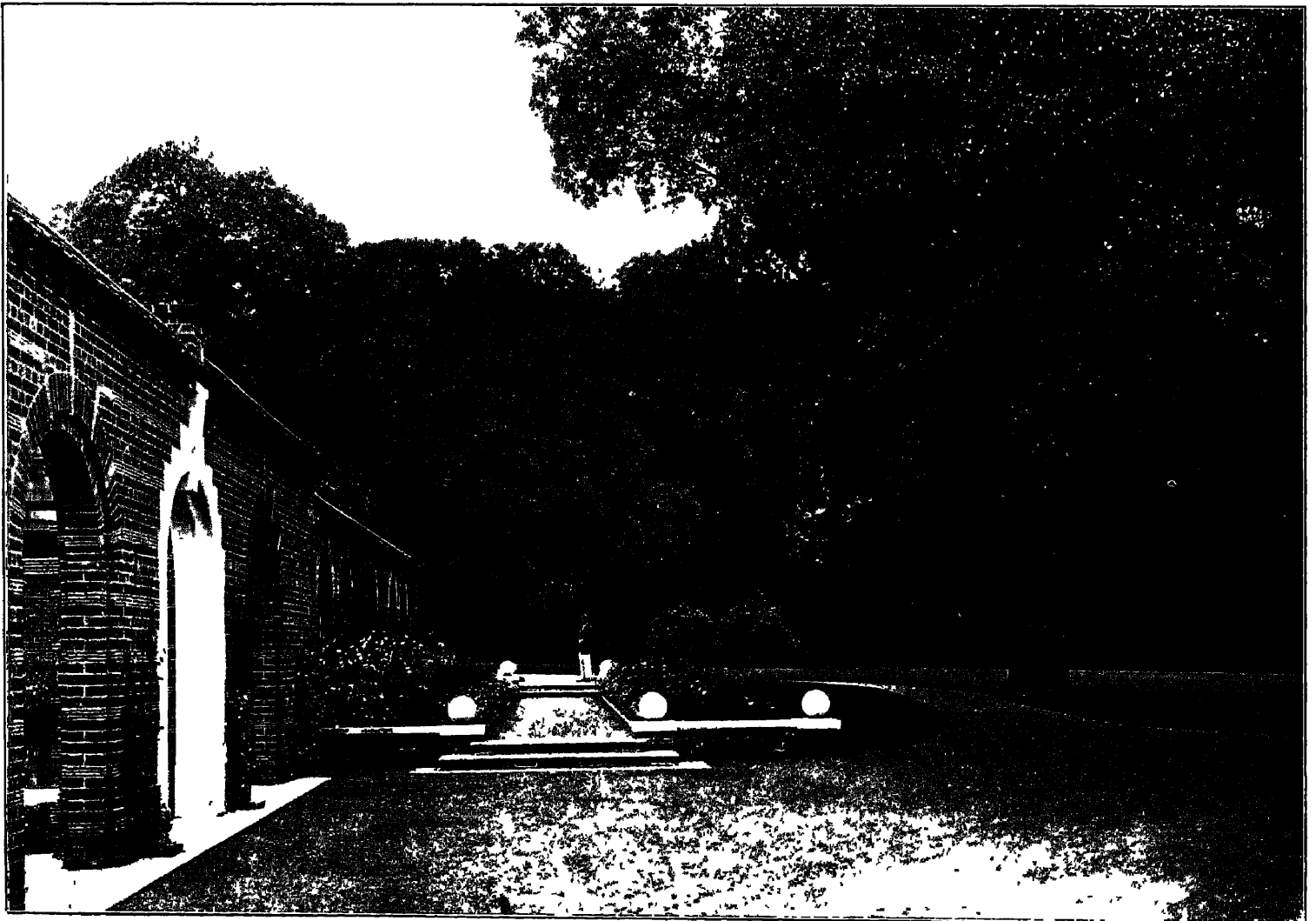


FIG. 87 —PART OF CARRIAGE COURT AND END OF DRIVE, WOOLLEY HALL



## CHAPTER VI.

Those who have studied the writings of the Early Victorian school of landscape gardeners, and those acquainted with the actual work of this period, will have noticed how the drive, which is generally the most important accessory of a country domain, seems to be treated as an unfortunate necessity. At best its æsthetic possibilities are considered to be limited to the focussing of vistas or views of the residence or park landscape, for which purpose it is arranged in a series of meaningless sinuous curves. Such expedients are seldom satisfactory. They may please on first acquaintance, but, as soon as the artificiality becomes apparent, they partake of the nature of tricks, which invariably pall in the end.

*Æsthetic  
value of  
carriage  
drives.*

To commence the task of designing and laying down the lines of the drive to a country house with such limited conceptions of its æsthetic possibilities would be a fatal policy. When we consider the importance of first impressions, and that, in the case of every house which stands in its own grounds, they are gained from the main approach, we at once see that no feature is so capable of giving, or on the other hand, destroying the dignity and sense of fitness in the setting of the mansion. It is also necessary to remember that, on the placing of the drive, depends the disposition of many other features which have a direct connection with it, or which must be so arranged as to secure privacy from it. It therefore follows that drives and approaches are to the garden designer what the skeleton lines of a conventional design, or even the leading lines of an unconventionalized statue or picture, are to the designer, artist or sculptor.

Notwithstanding much that has been written to the contrary, the questions of balance, symmetry, flow of line and the other factors which go to make up what we call "composition" in a picture or statue, all have their counterpart in the designing of drives, and must receive due attention if results are to be pleasing. In most cases in painting and sculpture, the designer is unhampered by utilitarian considerations, but in the case of the designer of a drive, these are the factors which must receive primary attention if it is to fall naturally and fittingly into the scheme of things. This is, of course, true of all garden planning, but in the present instance, where purely practical considerations come more prominently forward than in any other branch of the subject, except, perhaps, the arrangement of entrances and carriage turns, it is especially necessary to remember the close connection which must exist between the practical and æsthetic. The result must be a compromise, but need be none the worse for that, and may prove the fallacy of the popular dictum as to the futility of compromises. Even the artist must compromise with his medium and is bound by its limitations.

## DRIVES, AVENUES, AND SERVICE ROADS.

*Unnecessarily long drives*

Another misconception of the Early Victorian and Georgian schools of landscape gardening which it is necessary to guard against, is that a long and meandering drive adds dignity to a residence. From the time of Repton, or even earlier, it was sought to express the value and status of a property by the length of its private roads, and in several of the better known of our lordly domains, the direct connection with the highway guarded by symmetrically-placed gatehouses, was removed, and miles of long, serpentine drives laid out. In some cases the drive is even made to run parallel with the public highway for a considerable distance, even where the most rational and direct planning of the approach to the house would result in no drive at all, but merely in a carriage court screened from the public road by gate houses or a high wall and gates. Though such an arrangement may at first sight, appear æsthetically undesirable, it is, in effect, capable of charm and dignity and has the advantage of securing to the remainder of the grounds privacy and seclusion, especially where the main entrance door to the mansion and the public highway are both on the north side of the house. The cost of constructing and maintaining long drives is serious, and also fencing them against grazing cattle. Under any circumstances, they are not so efficient as the wide, macadamized and tarred highway with which they compete. A striking instance of this Victorian fallacy is given in the plan of Athelhampton Hall (Ill No. 91). Here, it would seem that the approach to this beautiful and ancient domain was originally on the lines which the author was privileged to restore them, as shown. When he was called in, the drive took the course shown by the dotted lines, and there is no doubt that the change from the simple, direct and dignified approach to one which runs parallel to the highway, was made when this false taste was in vogue. A glance at the plan shows immediately which method is preferable, whether considered from the æsthetic or practical standpoint. There are isolated cases where the character of a highway so alters as it approaches the house that it is undesirable for the drive to leave it at the point nearest to the mansion. Such a case occurred in the gardens laid out for Arthur Roberts, Esq., of Windermere. Here, the roadway, after being of a reasonable width and satisfactorily graded for a considerable distance, suddenly deteriorated into a mere farm track. In this instance, the only satisfactory solution of the problem was to place the commencement of the drive at the extreme corner of the estate, near where the roadway narrowed, so that only a few yards of it needed be traversed before reaching the main entrance; not more, in fact, than it was possible to regrade by agreement with the rural authorities without prohibitive expense to the proprietor.

Another exception to the rule of the direct drive must be made in favour of domains reached through exceptionally beautiful scenery, where, by reasonable deflection it may traverse especially fine country or romantic glens. No economic advantage, for instance, could justify the removal of the drive through Hawkestone Park in Staffordshire from under the natural arch of rock which at present spans it. There are numberless similar instances in other parts of the country. This acknowledgment of exceptional features which occur occasionally, are not to be pressed or forced to the exclusion of other weighty considerations. There is a danger of making the route a series of more or less artificial vistas and views.

*Different classes of drives.*

While it is impossible to arrange the various forms of main approaches to country mansions into hard-and-fast classes, they may be broadly divided into *naturally-planned drives*, following the contours of the country through which they pass; *formally arranged drives*, usually part of a symmetrical arrangement of drive, entrance and carriage court; and *tree-lined avenues*, straight or curved.

In Scotland all carriage drives, whether curved, serpentine, or straight, tree-lined or not, are called avenues; in this work, the English usage is followed, only roadways bordered by trees placed at even distances apart being so designated. In England,

## DRIVES, AVENUES, AND SERVICE ROADS

carriage ways, whether curved or straight, which are not bordered by trees, are called drives, while subsidiary roads used by tradesmen or estate servants connecting with the kitchen court, stables or farm steadings, and not used as principal carriage ways, are called service roads.

The whole subject of drive design is more dependent on scale and proportion than upon any other factor, and this determines which of the above forms shall be adopted in each individual case. It is a common error to give the approach a sense of importance altogether out of keeping with the size of the mansion, though, as stated when

*Importance  
of scale.*

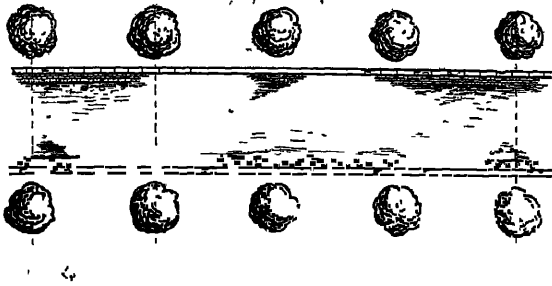


FIG 88

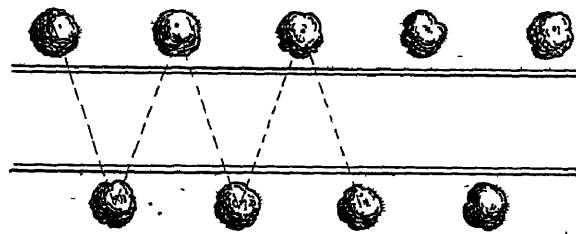


FIG 89

dealing with entrances in another chapter, the modern requirements of the motor demand an arrangement which, under older conditions, would have been somewhat grandiose.

Of all drives, the stately straight avenue, bordered by patriarchal elms making a lofty overarching canopy, or a double avenue securing a wide open glade to the mansion is most expressive of dignity and demands the most imposing architectural adjuncts to justify it. Such avenues, on any but the smallest scale, are out of place with anything but an important mansion. Even then care is needed to get length, breadth, distance between trees, lodges, entrances and gates, all so proportioned as to fall naturally into their places and to give a sense of ordered relation and simple dignity.

*Avenues.*

In general an avenue should be absolutely straight and level from end to end, unless there is an even rise throughout its whole length towards the house. Such a rise, if not steep is better than an absolutely level course, a drop towards the house, is, of all arrangements, the very worst, making the house appear in a hole.

Repton, in referring to the formation of avenues, states, as his opinion, that the effect is heightened where the route followed is over hill and dale. Probably he spoke of the appearance as viewed from the side and not up the green aisle, and of avenues with green drives not spanning a roadway, for straight roads and drives traversing a series of hills and hollows lose, to a great extent, that perspective which gives them their stately appearance. This is easily seen if the spectator stands on the first rise and looks towards the last one when only the summits are seen, the intervening road in the hollow being lost to view. It is important, therefore, when making a straight drive over undulating ground, that the heights should be reduced and the hollows filled to obtain length of line. When, however, there is a swinging hollow stretching from end to end of the avenue, and not so depressed in the centre as to bring the leafy canopy at that point level with the eye as viewed from one end, the effect is almost as good as on a level course. This is demonstrated on the Kenilworth Road a short distance from Coventry, though, in this case, the absence of some culminating architectural feature to close the vista is much felt.

*Repton on  
avenues.*

The trees for avenues should be chosen and arranged with due regard to uniformity in size and habit when full grown. This is most difficult where one portion of the route is more exposed than another to cutting winds, but much may be done by obtaining the whole quantity required from one nursery and selecting individual trees for each position.

*Uniformity  
of size in  
the trees.*

## DRIVES, AVENUES, AND SERVICE ROADS.

The remarks on the choice of trees for garden work given in another chapter apply equally to those required for avenues. In smoky districts or districts where height must be sacrificed for sturdy growth, the tap-root must be cut and the leading shoot pruned at a later date; in the open country in exposed positions, the finest results are often obtained by planting close together and leaving tap-root and leading shoot uncut.

*Arrange-  
ment of  
trees.*

The distance apart the trees should be planted in the rows depends not only on the species to be used, but also on whether they are to be placed opposite to the companion tree on the other side of the drive as in the first sketch (No. 88) or diagonally as in the second (No. 89). The former arrangement is to be recommended where the surroundings of the avenue are restrained and conventionalized, and the latter where it passes through more or less natural scenery. The spaces between the trees in the former case would vary from thirty feet for Lombardy poplars to sixty feet for full-grown elms, and in the latter rather less. In planting an entirely new avenue and where immediate effect is desired, double this number of trees might be inserted and half of them removed when they begin to overlap.

*Double  
avenues.*

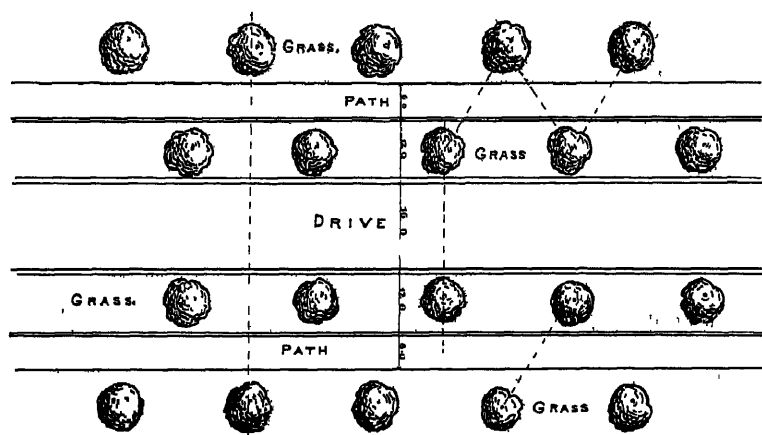


FIG. 90.

Where the scale of the mansion and its surroundings warrant magnificence, double avenues, of four lines of trees, may be formed, especially where side tracks for foot passengers are desired in addition to the central carriage drive. In such cases, the two central lines of trees would be planted opposite to one another, and the outer two, diagonally (No. 90). Additional effect may be obtained by pollarding the inner rows of trees and allowing the outer

ones to tower above them, an arrangement to be seen at Chelsea Hospital, although here again the avenues are somewhat meaningless without suitable architectural features to focus the vista. Pollarding is happiest where it is a local characteristic.

*Symmetric-  
ally  
planned  
drives.*

Pleached avenues are justified by formal surroundings and where the scale of the whole lay-out is not important enough for full-grown trees. They are most successfully formed of elms, beech or hornbeam. A commendable example may be seen on Romney Road, Greenwich, where it passes between the Royal Naval College and the Royal Hospital School.

Green avenues which form no part of the main approach to the mansion but are designed solely as a feature of the pleasure grounds or home park, are dealt with in another chapter.

The symmetrically planned drive shares with the avenue its particular adaptability to a position where grandeur is essential. The drive and entrance at Athelhampton Hall (Ill. No. 91), is a typical instance of this type of drive which has worked out well in practice, and produced a result which is dignified and thoroughly in keeping with the beautiful old architecture. As is necessary in this class of drive, the gate-houses were designed to harmonise with the mansion, with an arch over the gateway and massive doors, the stables also being re-arranged to suit their altered surroundings.

Formal drives of this kind are usually enclosed between clipped hedges with a space for grass between the hedge and the carriage-way, as shown on the plan just referred to; upon the correct proportioning of the breadth of the roadway and grass verges and the height of the hedge in comparison to the length, the ultimate effect depends. Such

## DRIVES, AVENUES, AND SERVICE ROADS.

drives cannot be extended beyond a certain length, otherwise the perspective dwarfs the mansion. No hard-and-fast rule can be laid down as to the length, as so much depends on the height and breadth of the facade of the house, but in most cases, fifteen hundred feet would be a maximum. In public boulevards and park avenues, this length may be much exceeded by placing a piece of statuary or other monumental feature in the middle of the roadway at its central point, i.e., equidistant from either end, as a focussing point, but in a private drive this arrangement would be out of keeping. Where the house is a long way from the highway, too far for a successful treatment on these lines, the best way would be to make a shorter formal drive at the end nearest the house, designed as a part of the more formal pleasure grounds, and

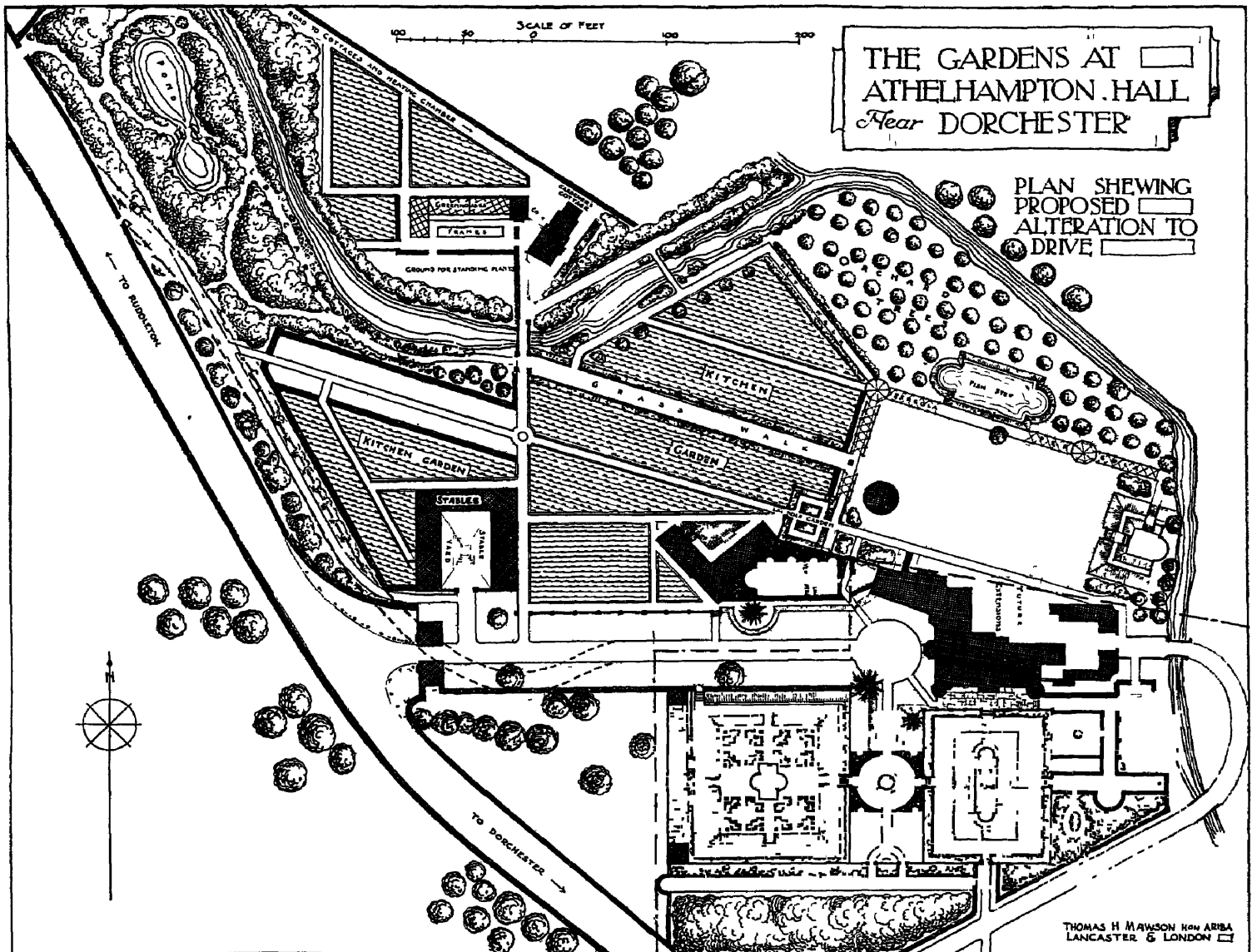


FIG. 91.

treat the rest of it in a free manner either with a drive laid down in sweeping curves, or better still, where circumstances allow, by a bifurcated drive, as in the sketch (No. 92). The point where the formal ends will need very strongly marking, and the best way will be to place the lodges here with handsome gates between, preferably of wrought iron, and to treat the roadway gates simply with wooden palings to the wings, the whole painted white unless in oak, when rambler roses could grow over it in luxuriant masses.

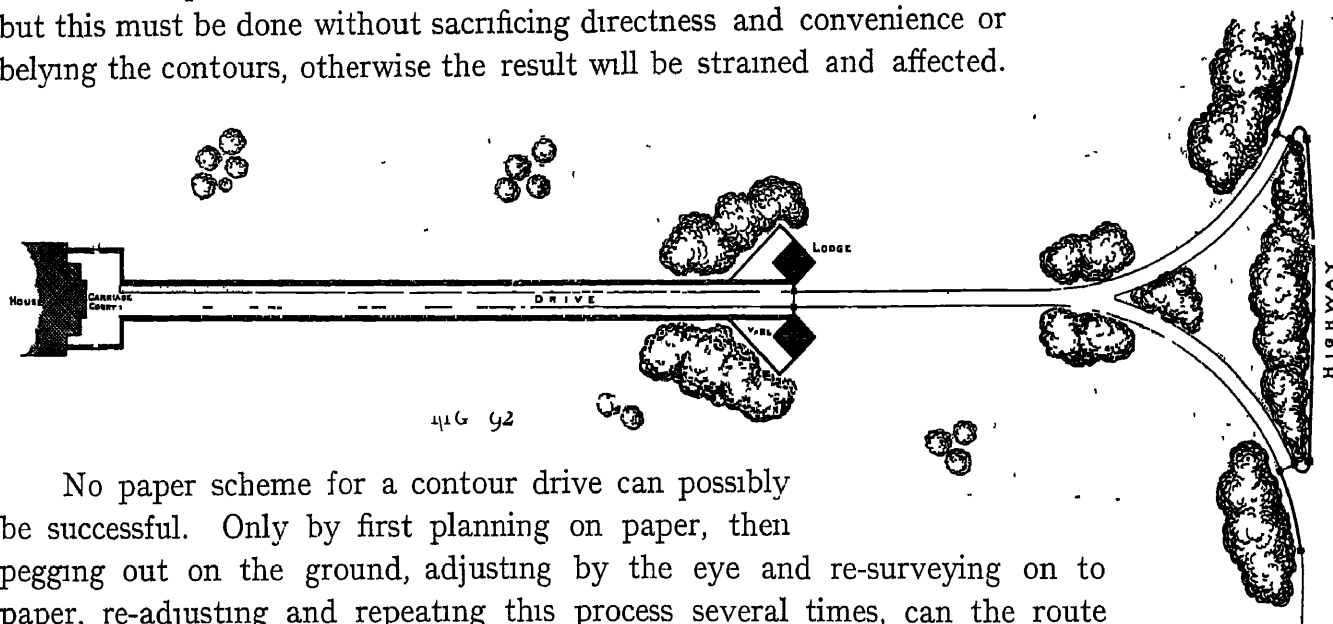
The lodges to symmetrical drives will themselves usually be best if symmetrically arranged, as shown in the two illustrations of this type of drive which are given (Ill. Nos. 91 and 92). Those appearing on the heading to this chapter would be suitable in some instances, while, in others, where greater dignity is required, a gatehouse with an arched portal and probably groined vaulting over the gateway would be more in keeping.

## DRIVES, AVENUES, AND SERVICE ROADS.

### *Informal drives.*

The effect of informal drives depends on a careful consideration of the contours, and an arrangement of the line of route which takes cognizance of them and emphasizes pleasingly the undulations of the ground. The way these purely local conditions are deftly woven into the scheme decides the pleasure derivable from the approaches to many a country seat.

A foremost consideration is to adopt a route which, if possible, allows the drive to leave the public road at a lower level than the house, to increase its apparent elevation, but this must be done without sacrificing directness and convenience or belying the contours, otherwise the result will be strained and affected.



### *Practical planning of curved drives.*

No paper scheme for a contour drive can possibly be successful. Only by first planning on paper, then pegging out on the ground, adjusting by the eye and re-surveying on to paper, re-adjusting and repeating this process several times, can the route be decided. Small pegs are useless to mark out the curves on the ground. Surveyors' poles are best, but where these are not immediately available, long clean slaters' laths will answer equally well to show up well against fallow ground. Where there are sudden dips in the ground longer stakes will be required, such as may be made from plasterers' angle-head.

The reason for using long stakes to mark out the course of the drive is apparent when it is observed how the dips and unevenness of the ground so warp the perspective that curves which look nice as at first pegged out would be found to be far too flat in the hollows and too sharp on the breast of a hill, when the inevitable grading is completed.

In order to judge more correctly of the effect of raising the surface of the finished drive above the natural level in the hollows, and lowering it at the highest points, a further expedient may be resorted to. Having fixed the long pegs in position, fix pieces of scarlet chair webbing about eighteen inches long to each peg, loosely knotted round so that they can be slid up and down. Now cut a piece of lath longer than the deepest cutting and using it as a rule, slide the webbing up or down the stake until they are the requisite height above the proposed finished level of the drive. By running the eye along the line of red on the stakes, an approximate idea of the ultimate result can be obtained, due allowance being made for the fact that curves will look flatter on this single line of pegs than on a drive twelve feet or more broad. The whole can then be surveyed and marked on the plan, the amount of cutting or filling at each peg being noted.

The above method of working must be subsidiary to a proper series of sections prepared from measurements taken over the course of the drive with a surveyor's level and plotted on to paper. In road engineering, practical considerations alone determine the route and levels, but with drives, æsthetic factors must also be considered, therefore visual aids such as those described are helpful.

There are two other ways in which the ordinary methods of the road or railway engineer fail æsthetically when applied to drives and service roads. One relates to



## DRIVES, AVENUES, AND SERVICE ROADS.

the arrangement of his curves and the other to his gradients. The former are laid down to fixed radii of circles tangential to one another or to intermediate straight lines. Where æsthetic conditions are sought, these set radii must give place to catenary curves, as the graduated curves assumed by a chain or rope when loosely suspended between two points. This is the sweep wheeled vehicles naturally take (unless running on rails), and consequently is the best to adopt practically as well as æsthetically.

*Engineers and Landscape Architects' methods contrasted.*



FIG 93

With regard to levels, the railway engineer's lines consist of one straight gradient, or "bone" running into another or into a level stretch, and it will invariably be found that, on facing a rise where there is a flatter gradient below meeting a steeper one

above, there will appear to be a sunk place in the surface where the two meet. When the conditions are reversed and the lower gradient is the steeper one, the surface of the drive will appear to be raised too high at the point of junction. The remedy is to plot all the gradients on to the sections in swinging curves at their junctions, at the same time keeping changes in both direction and gradient as few as possible. The accompanying sketch (Ill. No. 93) shows, by full lines, the engineer's methods in the bottom of a hollow, and by dotted lines, how the landscape architect would alter them. The most effective drive designed by the author is something under half a mile in extent, which, for its whole length, was carried in one long simple sweep round an amphitheatre of hillside and rising at one gradient the whole way from the entrance gates to the forecourt of the house.

The railway engineer's methods of working his sections will also need adaptation to the special requirements of private road work. The best way is to take a line of levels along the centre of the proposed route, and at each point measured, to take a level on either side, say fifteen feet away to right and left. The three lines of levels thus obtained are all superimposed over one datum line in three different coloured inks, making the centre line the most prominent to ensure clearness. The writer's method is to plot the three super-imposed sections to a much larger vertical than horizontal scale, and then to add the centre line only, drawn to the same scale as the horizontal measurements, using the same lines of heights above the datum. The arrangement of the surface levels can then be proceeded with on the upper set of lines, and are afterwards transferred to the lower centre line as a check, from which the resulting gradients can be read without calculation. The amount of cutting or filling at any point can, of course, be more accurately computed from the higher set of lines.

Where the subsoil is of such a nature that all the road-making materials can be obtained from the excavated portions, the finished level should be plotted on to the sections, but where these will have to be carted from a distance, the foundation levels should be laid down, thus allowing an equal amount of cutting and filling. It would seem, at first sight, as though rather more filling than cutting would be necessary, as the material used for filling packs so much more loosely than before being disturbed, even when it has had time to settle solid, but the amount used in making up the banks on the low side of a cross slope will about absorb the surplus.

Gradients should always be as easy as possible. The sight of horses struggling up a steep drive is not conducive to that sense of repose which is the characteristic of a garden; even a motor-car, slowly labouring uphill on the lowest gear conflicts with this sentiment.

*Ease of gradient.*

Gradients of more than one in twelve are to be avoided, although the question is relative to the general contours of the district. In extreme instances in the Lake District, where the residences are placed in almost inaccessible positions for the sake of the views, the writer has occasionally been compelled to adopt a gradient of



## DRIVES, AVENUES, AND SERVICE ROADS.

one in seven for short distances. This may be taken as being the steepest slope up which it is possible to get a heavy luggage cart or other loaded vehicle.

*Effect of curves.*

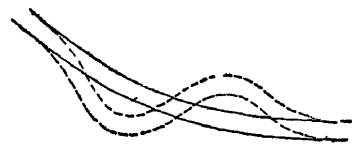


FIG 94

The curved drive, running through natural or park-like scenery which is most successful, is that which falls naturally and fittingly into its place as a part of the general landscape, and which has the appearance of being planned on the only possible lines. The effort to bring the course of the drive

into conformity with the contours often results, at the first attempt, in a series of short irritating curves, and it is in the combination of a number of these into one graceful sweep, as in the accompanying sketch (Ill. No. 94), that the designer's capabilities are tested. Both curves and gradients look much flatter on paper than on the ground owing to the fore-shortening effect of perspective, and this is why practical work on the ground must go hand-in-hand with designing on paper.

*Junctions.*

The junction points of curved drives with service roads require careful adjustment in their gradients. All road makers know the difficulty of joining varying gradients satisfactorily to prevent an awkward appearance. The two roads must meet in a natural and easy manner, or, to put it technically, their centre lines must be tangential to one another at the point of junction.

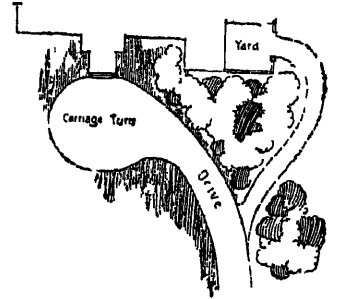


FIG 95

*Service roads.*

Where possible, entirely separate service roads should be constructed for the use of tradesmen and for the stables and carting. Where this cannot be provided and the main drive serves all purposes for a portion of its length, care should be taken that visitors cannot mistake the service road for the drive. The service road should be narrower than the main drive, and the junction kept as far from the residence as possible. The junction should also branch off with a sharp curve at a point where the drive is fairly straight, and the space at either side of the junction as shown in the sketch (No. 95).

*Preservation of privacy.*

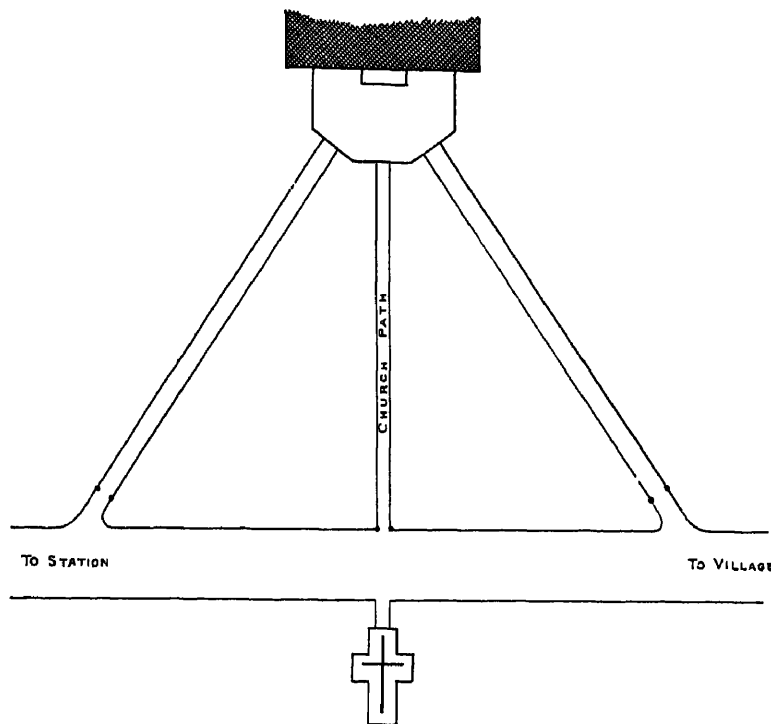


FIG 96

*Double drives.*

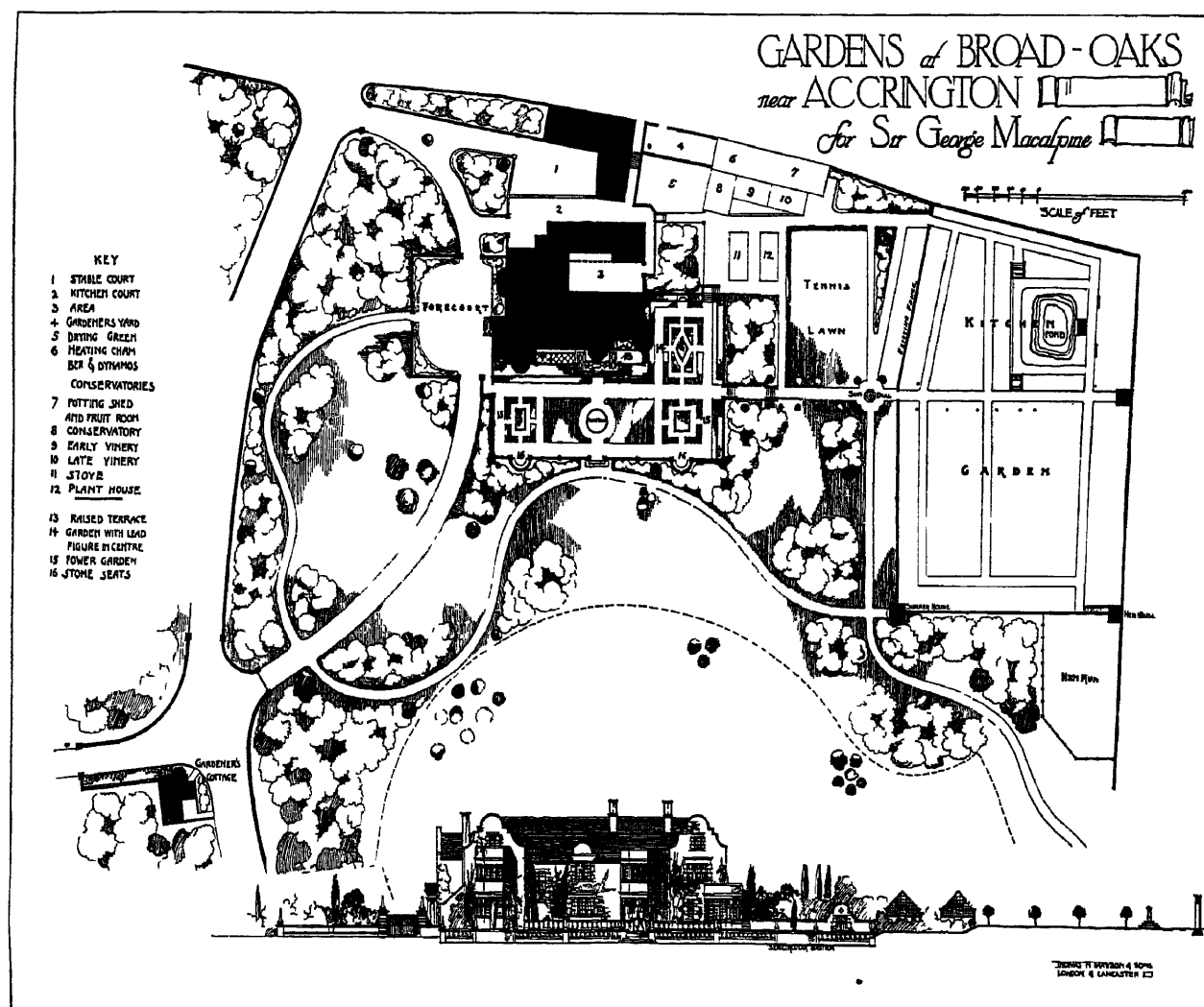
Curved drives often offend because they minimize or even destroy all privacy in the pleasure grounds. One has seen a drive carried round three sides of house to reach the front door. Unless the main entrance to the house has been very badly arranged, there could be no excuse for this, or for placing the approach that it comes in front of the entertaining room windows or overlooks the lawns or flower gardens. In bad instances a screening hedge would make some amends.

Double drives, enabling the traffic to return to the highway without

## DRIVES, AVENUES, AND SERVICE ROADS.

The double drive is the prerogative of houses standing in their own grounds and near enough to a large town to serve all the purposes of a town residence. At social functions confusion is avoided by reserving one route for arrivals and the other for departing traffic. Such a domain is shown on the plan of Broad Oaks, Accrington (No 97). Here the approaches are treated in the informal manner which best lends itself to double drives on this scale, while in illustration No 98, a more formal arrangement is shown.

Having decided whether the main approach is to be an avenue, a formal or a natural drive, the junction of the drive or avenue with the public highway and the angle and position of its termination at the carriage court, demand consideration.



## DRIVES, AVENUES, AND SERVICE ROADS.

### *Safety.*

The question of safety must always be paramount, and in this connection the advent of the motor-car has revolutionized the entrances and turns of Carriage Courts. Longer sweeps, a broader outlook and the avoidance of collision points are necessary, while turns at a short radius have to go. Formerly entrance gates were set back from the roadway fifteen to thirty feet, now thirty to sixty feet, with wing walls in proportion, is considered necessary. Entrances which, twenty years ago, would have been considered extravagant or even ostentatious in their proportions, to-day only meet actual needs.

As to the approach to the carriage court, whether the drive should terminate at its side, end or angle, depends partly upon the size and line of direction of the court and partly upon the architectural character and arrangement of the house, whether it is a perfectly balanced and symmetrical structure, or a picturesque many gabled composition without any dominant axis on which to centre drive, carriage court and gate piers as a self-contained and complete entity. In any case, it is wrong to enter the court with such a sharp or abrupt curve as to distort the perspective of the residence, it being seen in too steep gradation of scale.

Here are five examples of typical treatments from the writer's recent work.

Illustration No 98 shows the approach to a symmetrical classical mansion, having a pillared portico which centralizes the avenue, the double line of trees being set back forty feet from the centre of the drive, giving a clear width of eighty feet, to display the entrance facade. There is a second approach to the west which centres on an arch leading to the garage, and is surmounted with a clock cupola.

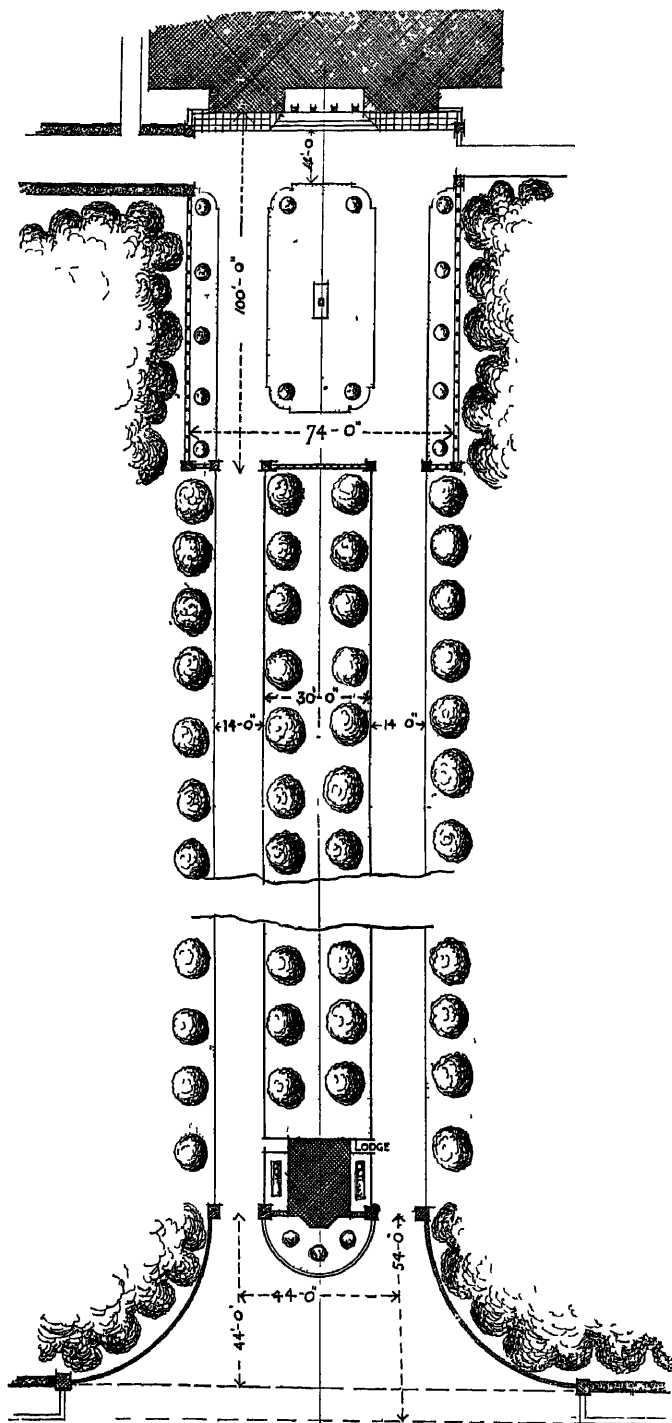


FIG. 98

No 100 shows the approach to a Scotch mansion having an imposing entrance in the angle of the "L" shaped building. The court is enclosed with yew hedges, and the position of the entrance has given the opportunity for the arrangement of brick paving stone.

No. 101 is the approach to the carriage court at Wood, South Tawton, in Devonshire, a view of which forms the subject of the end papers to this book. In this case there is a steep cross fall between the points A and B

No. 102 shows the approach to a type of residence which is happily as usual as it is delightful, one which has been built at various periods in the styles in vogue when each new addition was made, and at all angles, resulting in a haphazard picturesqueness which resents any formal arrangement of drive or approach

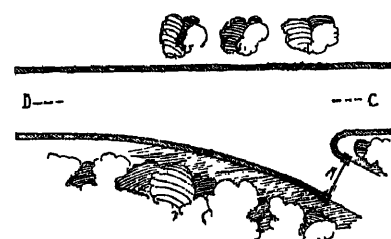


FIG. 99

## DRIVES, AVENUES, AND SERVICE ROADS

No 104 shows a double approach entering a large court from opposite directions, each drive, for a distance of nearly a hundred yards, centring on the *porte cochère*; No 105 shows a variant of this arrangement.

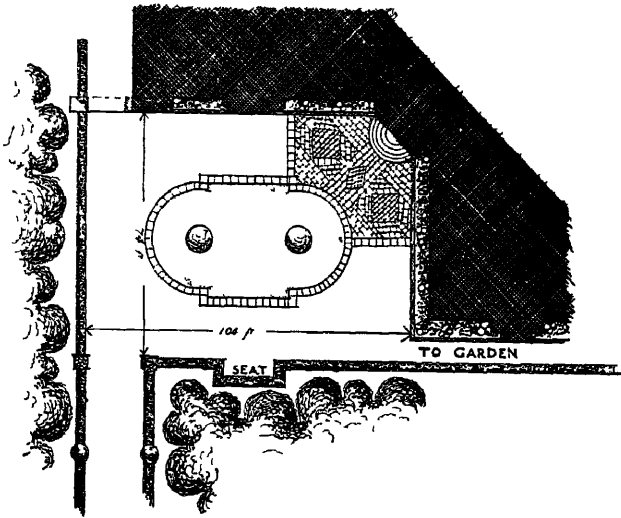


FIG. 100.

Having thus dealt with the various forms of drives, avenues, and their terminations, a few remarks on those methods of construction common to them is given.

Materials vary in different parts of the country, it is policy to make the best of those available locally; the cost of importing say a hundred tons or more of stone required for even a short drive would be prohibitive. In extreme cases where the traffic is very heavy, it might be advisable to obtain Mount Sorrel or Aberdeen granite for the sub-surface as the truest economy.

*Materials.*

Whatever the material the processes of construction are much the same. When the ground has been made up to the required levels and gradients by cutting through the higher parts and filling deep hollows, and the "made" portions have had time to consolidate, a layer of broken stone, where possible from six to nine inches diameter, is laid over the whole width. This is the "pitching," and there are two varieties, viz.:—rough pitching and hand pitching. The former is the quickest; needs being tilted out of a cart, then breaking up and levelling down pieces larger than the rest, when it is ready for the sub-surface material. In the latter method, each piece of pitching material is placed by hand, giving the unfinished drive the appearance of being roughly paved. Where material is plentiful, the former method will be best, but where it is expensive or difficult to obtain, the latter is the more economical, particularly as it effects a saving in the subsequent operations.

*Pitching.*

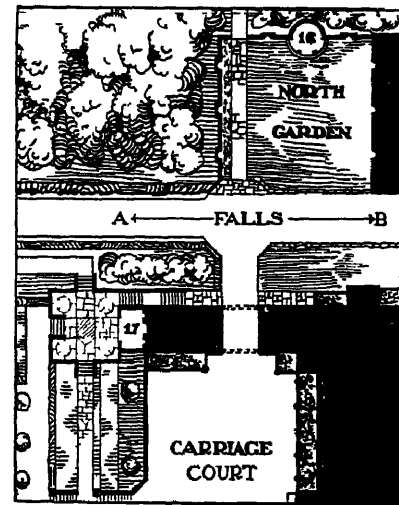


FIG. 101.

The success of the pitching depends upon securing a good firm bottom. In most districts this is obtained by removing a foot or so of turf, soil, fibrous matter, etc,

*Peaty subsoils.*

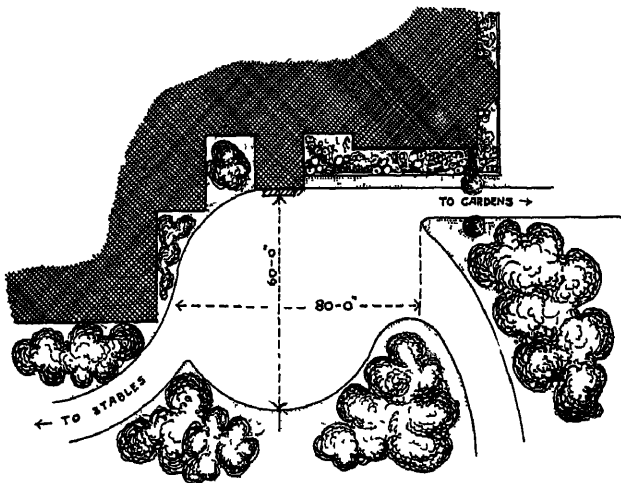


FIG. 102

but in others, where the ground is very wet and peaty, or where, as in many parts of Sussex, the subsoil is light sand, means must be taken to insure that it will not work up between the pitching and so destroy the work, as it otherwise would in the course of a few weeks. In the case of a peaty subsoil, where this is only shallow, the cheapest method is to remove it entirely and fill up with dry rubbish, adding a proper system of land drains, even though this may mean heavy initial expense. Where the peat is too deep, it must be thoroughly drained, and both here

and in the case of light sand, a layer of faggots, brushwood, or other tough fibre, laid under the pitching, will keep everything in place, until time and the traffic have together consolidated the whole construction. In north Hertfordshire, pitching of any sort is

## DRIVES, AVENUES, AND SERVICE ROADS.

dispensed with, and a layer of chalk substituted, but this is a material which needs care. In other districts however where the physical properties of chalk are not the same, a putty-like substance oozes up between the stones and ruins the work. Brick-bats and clean building rubbish, make good pitching where stone is not available; the writer has made public park roads with a foundation of the broken crockery, in the Potteries.

*Sub-surface material.*

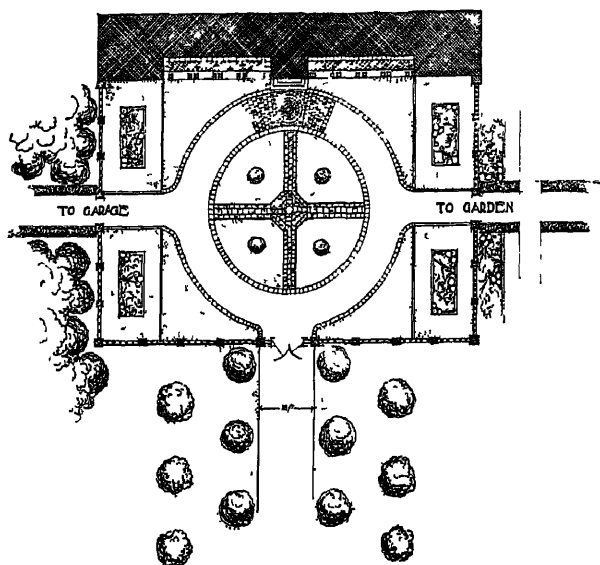


FIG 103.

The pitching having been laid, a solid foundation is formed on which to put the surface material of the drive. This is usually of two kinds, which may be described as the sub-surface material and the grouting. The former consists of stone broken to pass through a sieve with a two-inch mesh, and the latter is either finely-broken stone used to fill in between the sub-surface material and form a smooth surface, or material added to cement the whole together. Undoubtedly the best materials are those which make their own grout, being of a tough but not brittle consistency, which when rolled, make a cement-like detritus which itself acts as a grout. The best of these is the magnesian lime-stone so largely used throughout the Lake District, but all lime-stones are by no means so good. Some make the dusty and muddy roads. Such materials as granite or flints need an added grout, and probably the best in most cases is formed of road scrapings, while another often used is composed of garden loam. If the sub-surface material is formed from rounded stones from a watercourse or sea shore, they must each be broken at least once, even if this makes them rather too small, otherwise

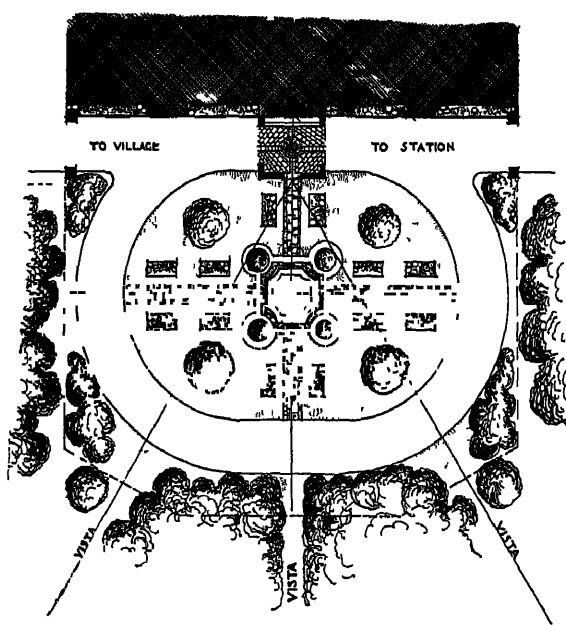


FIG 104.

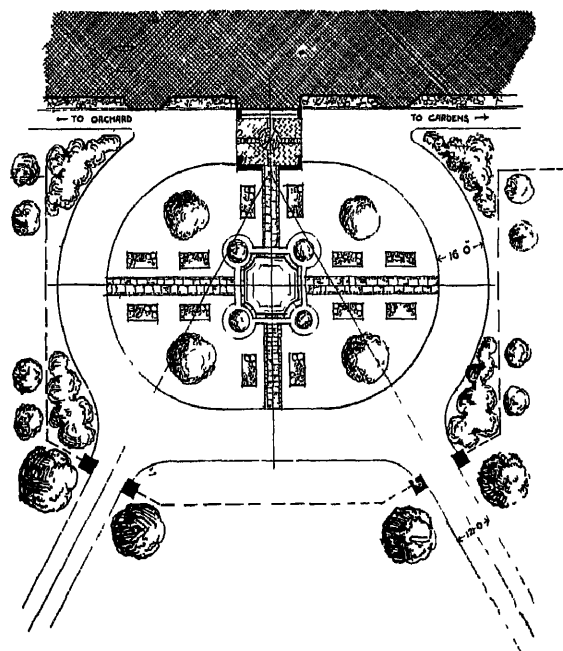


FIG. 105

they will not bind together and pieces will be continually loosening. Where a drive is being made to lead to a new house, it is a good plan to make it up roughly before building operations commence, and then to insert a clause in the contract making the contractor responsible for its being left by him in as good a condition as he finds it. The advantage is that all the heavy carting for the house will thoroughly consolidate it, and any weak points will show themselves, and be filled in with rubbish, often several times, and it will only need the surface repairing.

## DRIVES, AVENUES, AND SERVICE ROADS.

At every stage in its construction, the drive should be rolled with a fairly heavy roller, of such a weight that it neither breaks up nor drives the pitching into the subsoil. A drive to be used by motor traffic, should be finished with a light steam roller. *Rolling.*

All drives should be "crowned" or raised in the centre and sloped away at the sides. Where the drive is hand pitched, form the crown in the subsoil before commencing the pitching and keep each layer of material the same thickness throughout, but where it is rough pitched this is not so important. A good general rule is to make the drive with a crown which raises the centre one inch for every two and a half feet of width from crown to side. Thus a drive twelve feet broad would round up to the centre nearly three inches, and one of eighteen feet nearly four inches. Local conditions and the relative absorbency of the material used preclude hard-and-fast rules. For the sake of cyclists especially, but also for other fast traffic, it is better where the drive curves, and especially where the curve is sharp, that the camber should be carried straight across the drive, making the inside of the curve the lower and the outside the higher point. This is *Crowning.*



FIG 106 —DRIVE CUT THROUGH SOLID ROCK.

particularly necessary where the drive curves to the right going down-hill, where it would, of course, necessitate a special arrangement of the catchpits.

To provide catchpits in every drive would be expensive, the surface water can often be carried off by well-placed drains. No rule can be laid down for the catchpits, but the steeper the drive is, the more will be necessary. The grate should be twelve inches by eight inches with the bars curved towards the centre, and with a lip standing above the level of the frame at the lower end to check any tendency for the water to shoot over it. The chamber under the grate may be built of dry bricks, without mortar or cement, and, to carry the water away, stoneware pipes are better than earthenware, except where laid exceptionally deep, as the latter are apt to be broken by the traffic. Where the drive is steep, side channels are necessary for storm water. The most pleasing channels are of cobble paving, as in illustration No 106, where in keeping with local characteristics, as in a district where flints abound, or where cobble paving abounds. In a brick district, a channel constructed of ordinary stock bricks looks well. Where the rush of water is likely to be exceptional, lay cobbles or brick in cement. This is at all times the best method in the former material, otherwise the joints abound with weeds. *Catchpits.*

The widths of drives depend on many circumstances, and do not admit of solution by the application of dogmatic formulæ. In no case, except where the drive is a mere *Width of drives.*

## DRIVES, AVENUES, AND SERVICE ROADS.

carriage sweep a few feet long, should it be narrower than twelve feet, while for drives in constant use over two hundred yards long, sixteen feet is the width. It may seem unnecessary to state that the same width should be carefully adhered to throughout the whole length unless under special circumstances, but observation shows how very few drives do so. Irregularity is not picturesqueness; neatness is the soul of a garden. The width of service roads should be proportioned to that of the main drive; they may be anything from eight feet wide upwards, this being the narrowest which will take a tradesman's cart.

*Cross levels.* The effect of a drive may be ruined by neglect of the banks at its sides where there has been interference with the natural levels of the ground. The artistic management of cross levels demands greater attention than is usually bestowed upon it, and this is particularly so where, to insure an easy gradient, the drive follows a winding course through an undulating park, entailing a deep cutting or deep filling, or where there is a cutting on the high side and a fill on the lower. In any of these cases there should be a level verge on either side of the drive at least two and a half feet broad with the bank beyond it arranged in reversed or "O.G." curves to connect with the natural levels (Ill. Nos. 107 and 108).



FIG 107



FIG 108

*Fencing of steep banks.* The protection of drives where there are steep falling banks on one or both sides is often necessary. A simple horizontal bar about three feet from the ground and supported at intervals of ten feet by a stout post will provide all that is necessary to give an assurance of safety.

The planting of the banks of drives and the treatment of their terminations, are referred to in another chapter.







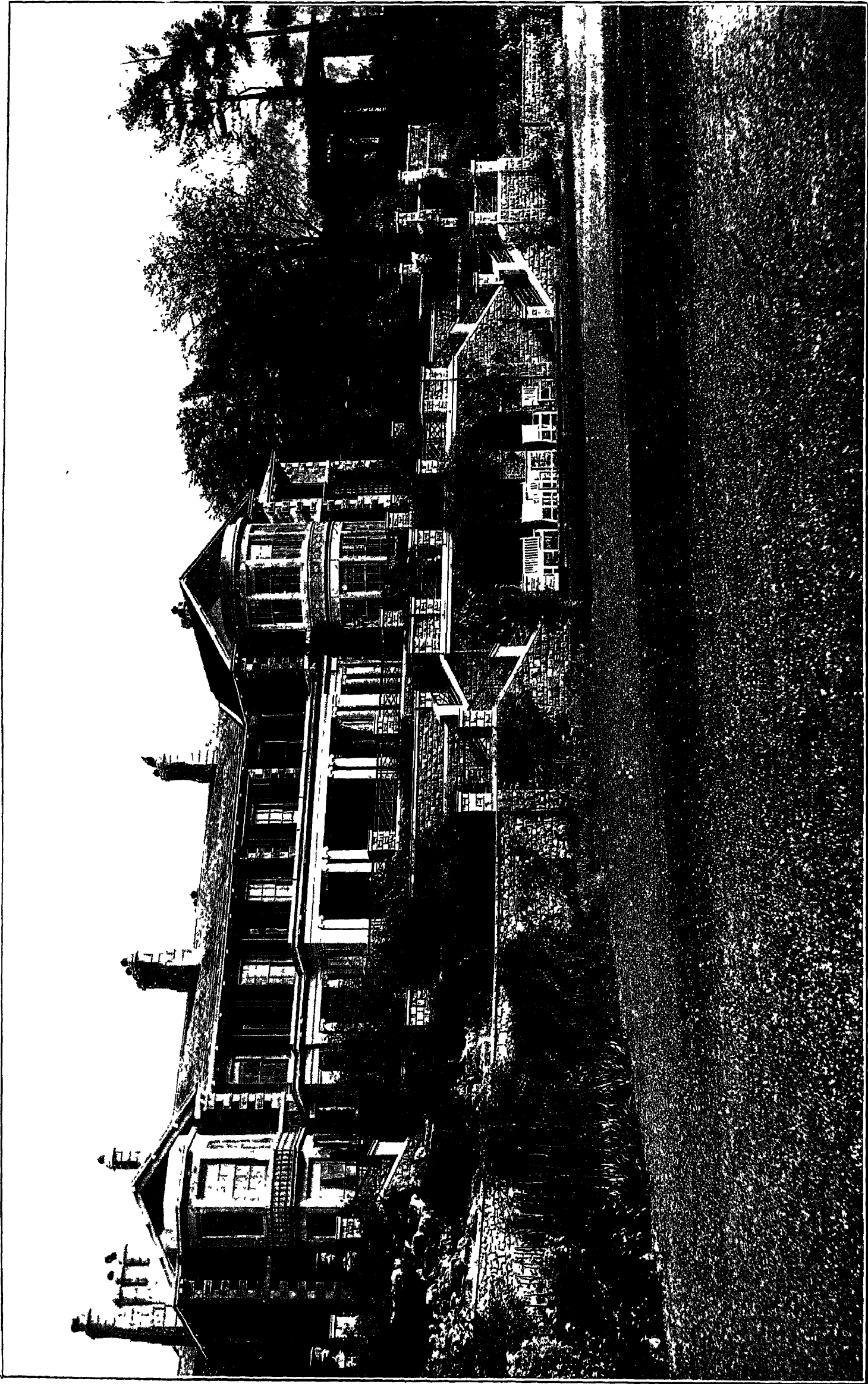
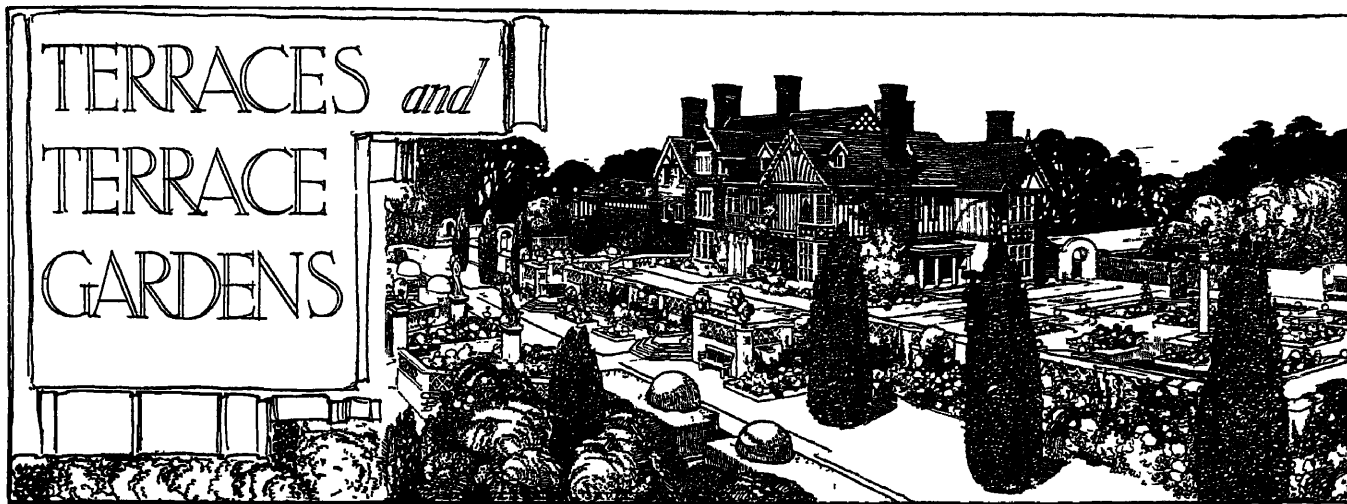


FIG. 109.—TERRACES AT HAZELWOOD, SILVERDALE, FOR W. J. SHARP, ESQ.



## CHAPTER VII.

Very gratefully does the eye accept the steadying foreground stroke and the clean measuring line secured by the levelled areas and symmetrical walls of balanced terrace scheme, against which it measures the freer effects of foliage and the imaginative mellow distance.

There are, of course, many minds true to the characteristics of the rough-and-tumble Briton, whose ideal is absence of regularity, and who prefer that everything shall be spontaneous, with nothing in any sense of the word conventionalized. Whatever the personal preferences, it may be taken as an axiom that the immediate surroundings of our homes must, before all things, express a spirit of restfulness, a quality which is generally effectively secured by means of a more or less formal terrace scheme

*Restful  
effect of  
terraces.*

Although terraces are shown in connection with nearly all the gardens illustrated in this work, this feature is by no means a necessity. There are notable instances where there is no regular terrace scheme, but every landscape architect whose work has obtained recognition agrees that, in all but exceptional cases, in order to give a proper connection between the house and garden, a formal arrangement near the house is essential. Domestic architects who have undertaken the design of the garden have always made the terrace an important part of their scheme.

*Terrace not  
always  
necessary.*

A terrace is considered by most people as a raised platform, often a mere strip of walk some eight or ten feet wide, occupying the ground between the house and garden, the purpose of which is not very clear, as it can scarcely be considered as a part of the garden scheme, and the residence apparently disowns it.

It is not in this restricted sense that it is dealt with herein, but rather as the whole plateau on which the house stands, together with the level enclosures referred to elsewhere as outdoor apartments, forming a part of the architectural scheme. These in many cases, include, in addition to the main terrace, a series of flower gardens and parterres at varying levels, each portion so arranged as to be complementary to the others, and the whole forming one comprehensive plan.

*Æsthetic  
purpose of  
the terrace.*

The terrace scheme being in such close contact with the residence, and probably the most prominent feature in the more ornamental portion of the grounds, it is necessary that, in designing a new garden, it should have consideration before other portions are dealt with. While the terrace cannot be divorced from them, but must be designed in relation to them, it will usually be found that, at the same time, its design very largely decides the main lines of the whole scheme so far as they are not already fixed by the contours and other natural features of the site. To what a great extent this is true will be evident after an examination of the accompanying plan of gardens at Anglevilliers, near Paris, designed by the author (Ill. No. III). Here vistas along grass glades, over the ornamental water and along by flower beds, centre upon and have their proper connection with the terrace scheme.

*Terraces  
dominate  
entire  
scheme.*

## TERRACES AND TERRACE GARDENS.

The methods to be adopted in this important work have already been briefly indicated in Chapter III. As is there explained, the terrace being the centre round which the pleasure grounds or woodlands are arranged, attention would first be directed to discovering and framing those features visible from it which have in them the elements of the picturesque, or which in any way give character and individuality to the site "Nothing" says Sedding, "is prettier than a vista through the smooth-shaven green alley or an archway framing a view of the country beyond," and it is for the creation of such effects that the designer must aim in the arrangement of his terraces and particularly their steps and the placing of seats, arbours or bastions so as to emphasize them when created, at the same time taking care that the balance and symmetry of the scheme as a whole are not endangered in the treatment of individual features.

*Adapting  
terrace  
levels to fall  
of ground.*

The points of special interest having been noted we may proceed to arrange the widths and levels of the various terrace plateaux on an axial section line such as that described in Chapter III., and shown in illustration No 12. The resulting areas having been pegged out on the ground, a "grid" of levels should be taken at points either ten, twenty-five or fifty feet apart over the whole of each of them and an average struck which will more accurately determine the finished level of each portion of the scheme. Where the filled-up portion of the terrace is supported by a retaining wall, the fact that the excavated material will occupy more space than it did before removal must be taken into account, but where grass slopes are formed where the level of the ground is raised, this will not be necessary as the amount of surplus material will be just about enough to make up the slopes.

*Termina-  
tions of  
terraces.*

More terrace schemes fail through the lack of decisive and marked terminations than from any other cause. While a bold and effective treatment may be given them in their relation to the main facade of the house, and the whole scheme is centralized by the planning and scale of symmetrical steps and bastions, the ends of the terrace

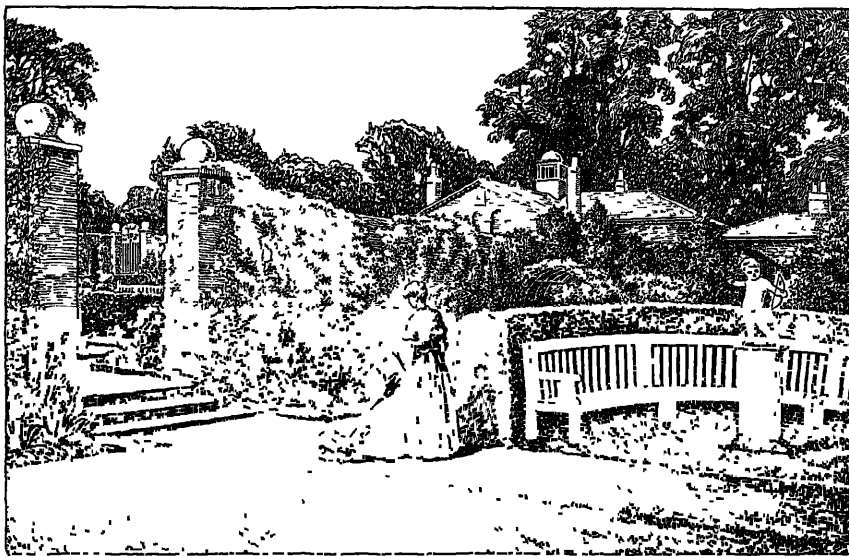


FIG 110 —THE END OF THE BOWLING GREEN, FOOTS CRAY PLACE

are allowed to "fade away" as it were into the less conventionally planned portions of the grounds. In many cases it has obviously been felt that all was not as it should be, and additional central features, such as heavy and over-elaborated flights of steps, are added so that the eye is drawn away from the weak extremities. Such palliatives are meaningless, and nothing but full recognition of the fact that the strongly marked cross lines of the terrace balustrade and paths themselves form a vista, which must be appropriately closed at its termination, can supply a corrective. In the plan of the gardens just referred to (No. 10), the door to the kitchen garden would be so designed as to supply the necessary emphasis, and in other cases a small arbour, a boldly proportioned bastion, a seat with a little pentroof over it backed against the wall, or a circular seat like that shown in (No. 110), with a screen hedge behind, might be substituted.

*Widths of  
terraces*

Much space has been devoted by writers on garden design to the length and width of terrace gardens, but, as will be seen from what has been already said, this is a

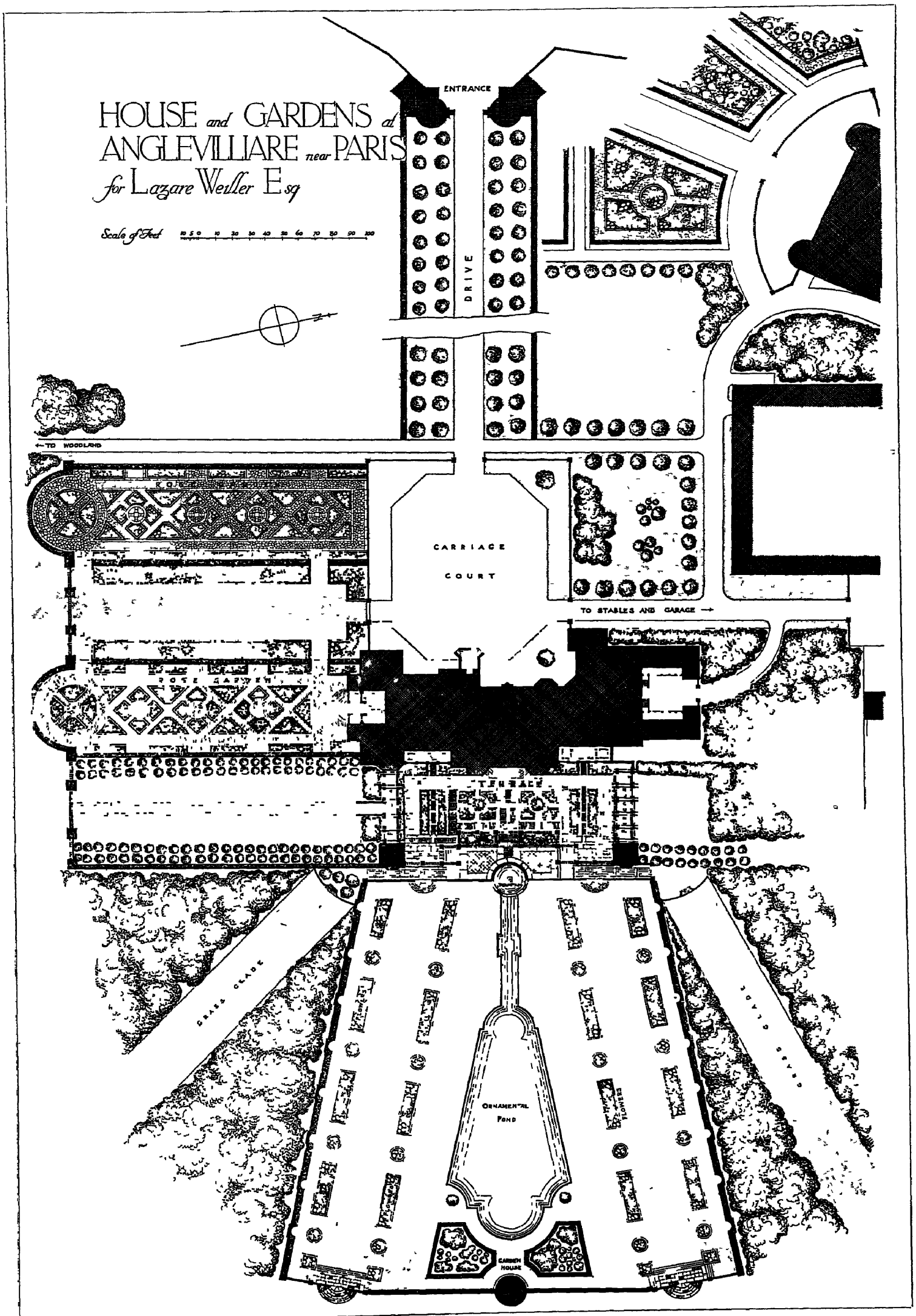


FIG. III.

## TERRACES AND TERRACE GARDENS.

question which very largely decides itself Except where a raised plateau is being specially made on an entirely flat site, on which to place the house, it will be governed by the contours considered in relation to the height which is desirable for the retaining walls.

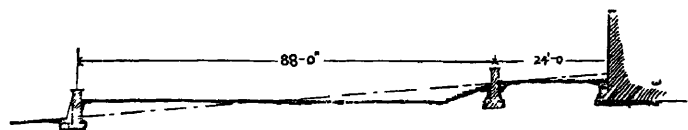


FIG. 112

For instance, if the average fall in No. 112 is one in fifteen, and it is decided that retaining walls cannot be made higher than will support a bank of earth four and half feet high without appearing clumsy, the result will be as shown, and the proportions between the widths of the two terraces will also be fixed between very narrow limits, for moving the upper terrace wall would immediately throw the finished level too high or too low in relation to the floor level of the house. The broader the terraces on a given slope the higher the terrace walls, and so it becomes a question of adjusting the breadths in order to guard against crampedness on the one hand and repellent engineering feats in the walls and their steps, which may look too much like fortifications if too deep and heavy. In those exceptional cases, however, where the conditions allow a choice of widths, the terrace next to a mansion of average height and frontage should not be less than twenty-five feet wide, while for the lower terraces, one hundred and twenty feet by sixty feet, or larger in the same proportions, will generally be found suitable.

Only by adapting the terraces to the natural levels of the ground can we secure that restfulness and harmony between the home and the landscape which is so desirable,

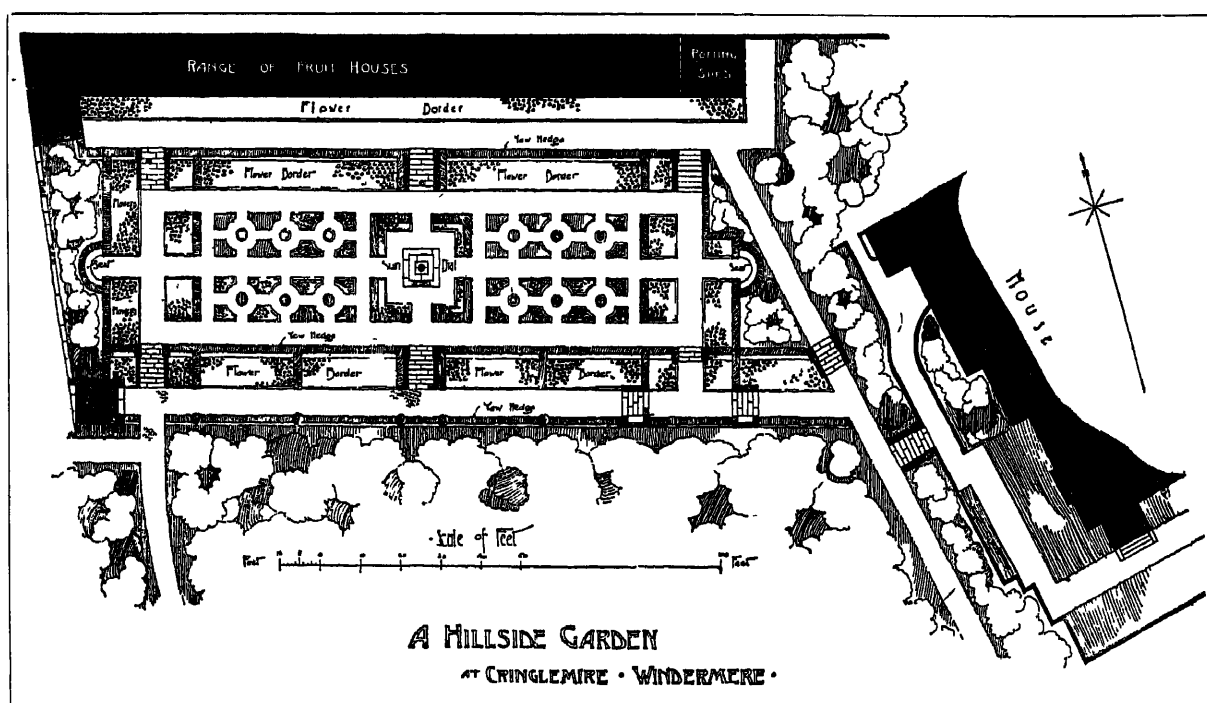


FIG. 113.

and obtain harmonious composition whether they are viewed from the mansion or surrounding gardens. Any attempt to violate the contours will result in apparent artificiality which will be instinctively felt by the beholder without his being able exactly to account for it.

### *Examples.*

The importance of fitting the house and garden to the natural contours of the ground is shown on illustration No. 10. Here each of the four garden levels can be seen from the window of the great hall; on the north side the kitchen garden is hidden, with the exception of the central walk, between the herbaceous borders. On this site the cross fall is fairly even, but in the greater number of cases there is an oblique cross fall which is more difficult to deal with.

In some cases the terraces may even rise from the house on one side while they

## TERRACES AND TERRACE GARDENS.

fall on another, as at Blicking Hall and Tissington and partly at Haddon Hall, or as at Graythwaite Hall (page 52), and again at Wood, North Devon (No. 380). Everything depends on the natural fall of the ground.

Although terraces are usually level, circumstances arise where it is advisable to follow to a limited extent the slope of a steep hill, as in the hillside garden designed for Henry Martin, Esq., of Windermere (Ill. Nos 113 and 114). On very steep hillsides, where the whole face of the country for a mile or more in each direction slopes all one way, a terrace finished to a true level would appear to dip into the ground on the higher side. To rectify this it is necessary to give the surface a slight cross fall of, say, one foot in fifty in the direction of the slope of the hill. In fact, there are few terraces, even where the ground below them slopes only slightly, which would not be improved by a drop of a few inches from the side nearest the house to the retaining wall. As, however, the greater part of the filled-up portion is on the side farthest from the house, this is a matter which usually takes care of itself, for after the ground has been made as solid as possible and paved or gravelled to a truly level surface a little settlement in the filled portions is sure to take place. Nevertheless, every effort should be made to get the ground solid before finishing the surface, or the settlement may be excessive. In some districts this is best done by watering with a hose, but in most materials, ramming must be resorted to. Even after thoroughly ramming or watering, or both, time must be allowed to elapse before the surface is made up, and some settlement may go on for twelve months or more where the filling is deep or the material contains fibrous or other organic matter.

The various levels of a terrace scheme having been decided upon, it becomes necessary to consider the treatment of the lines of division between one level and another. There are numerous ways of doing this, but walls or grass banks are most usually adopted.

Grass banks have the advantage as regards first cost, but, when the constant cost

*Terraces with a cross fall.*

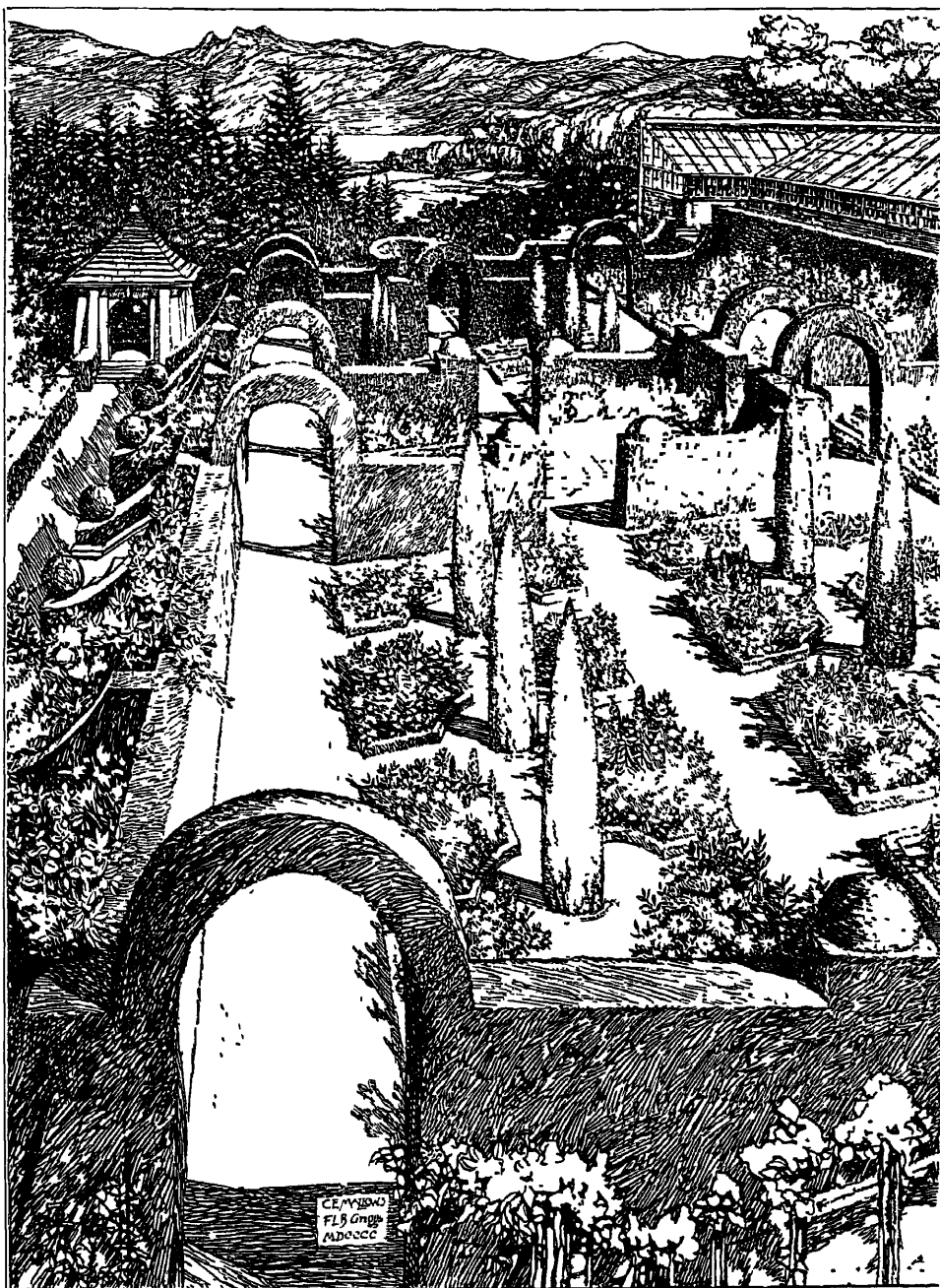


FIG 114 —TERRACED EFFECT ON A STEEP HILLSIDE.

*Grass banks or walls.*



## TERRACES AND TERRACE GARDENS.

of upkeep is considered, walls are really cheaper in the end. Where grass banks are adopted, they should rise at an angle of one foot to every two feet of horizontal breadth. Not only is this a most convenient slope to fit steps to, but a steeper bank is apt to "burn" in hot weather, that is to say, it is so naturally dry that the grass is scorched

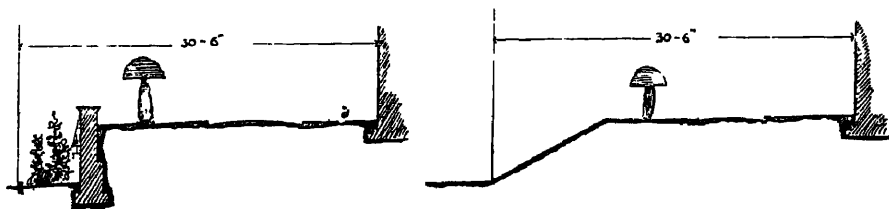


FIG 115

and deadened. A flatter bank is apt to give an indecisive line of demarcation between the levels it separates. Aesthetic considerations are usually all in favour of a wall. Not only is a flower bed difficult to arrange satisfactorily at the foot of a slope, but the bank will usually remain a bare expanse of shaven grass and therefore not be sufficiently differentiated from the lawns above and below, whereas the walls are soon garnished with a mass of roses and other free-flowering climbers. Where the difference of level between the two terraces is unusual in either way, a wall is again preferable, for very deep banks are difficult to mow and very shallow ones are ineffective. A terraced effect can be secured with a rise so small as one foot, if supported by a dwarf wall with the coping standing about six inches above the higher ground level, but with a grass bank so slight a rise would be almost entirely lost. Such a wall may be seen on the plan of a garden at Berkhamstead, shown in illustration No 454. In many cases, again, the amount of ground occupied by a bank is a consideration. If a wall is substituted it can be saved for a broad border at its foot (see Ill No 115).

Most garden lovers prefer a wall overgrown with climbers, yet are deterred from erecting one, fearful of incurring the cost of such a feature, and therefore adopt a slope laid down with grass, or planted either in an informal manner or with a variety of shrubs. The cost of a wall, however, depends entirely on its elaboration and enrichment. If the architectural character of the house demands, in its immediate vicinity, a pierced or balustraded finish, which of itself may cost forty shillings per foot run or even more for the pierced work only, the outlay, for an extent of wall so erected, would, of course, be heavy, but there are comparatively few occasions on which such elaboration would be in keeping with the architecture.



FIG 116

*Treatment  
of terrace  
walls.*

Where they are not discordant with the scale and effect of the house, terrace walls of simple design, built in local material, may often answer all purposes more effectively than elaborate erections, and, when covered with hardy climbers, are equally interesting, or even more so than any other. Illustrations Nos 116, 117 and 118 demonstrate this point. The first shows a terrace wall in brick in the home countries, and the other two, indicate how well the limestone of the Lake District, with its massive construction, harmonizes with its rugged surroundings. Most of the terrace walls designed in connection

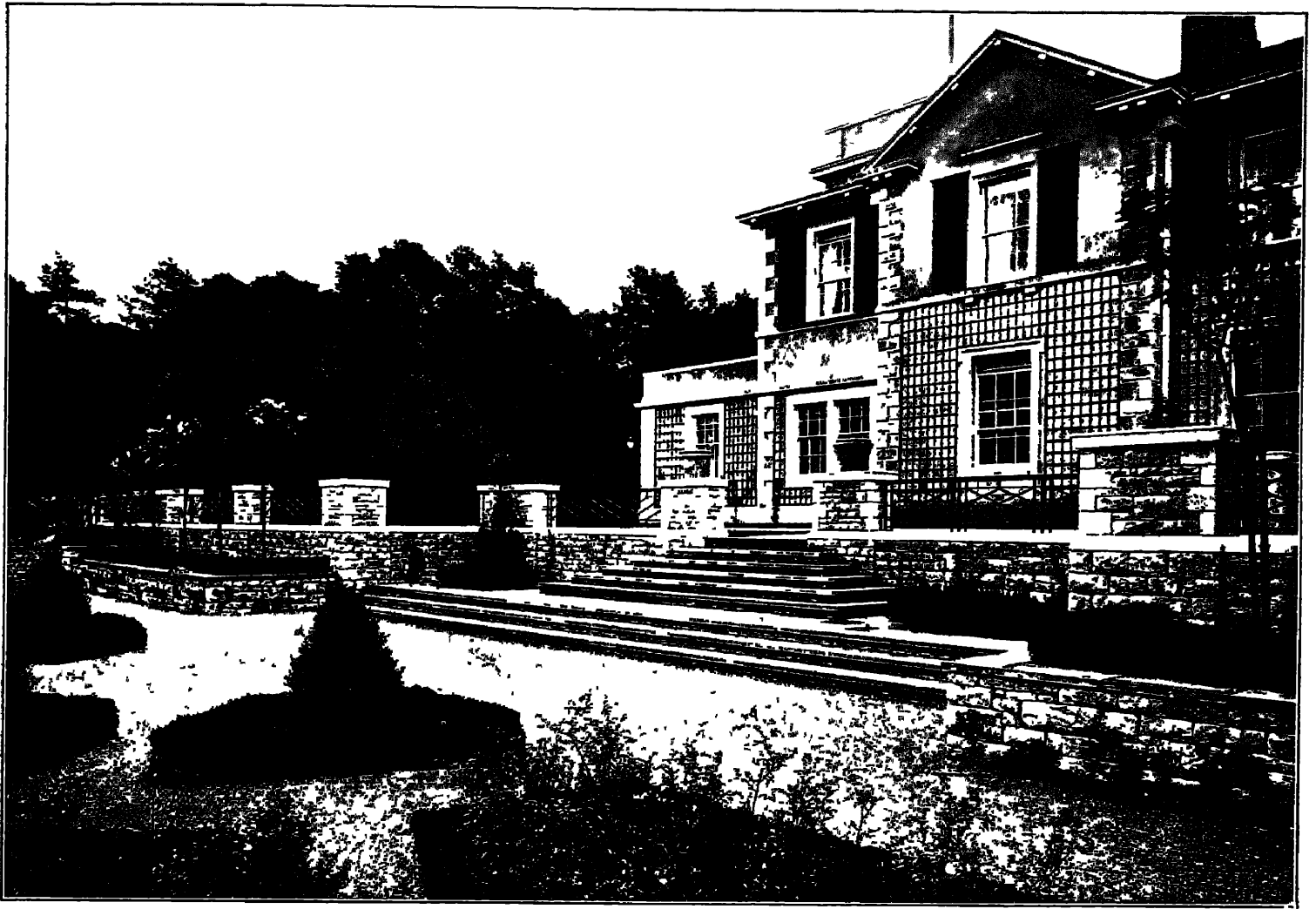


FIG. 117.—UPPER TERRACE AT HAZELWOOD, SILVERDALE

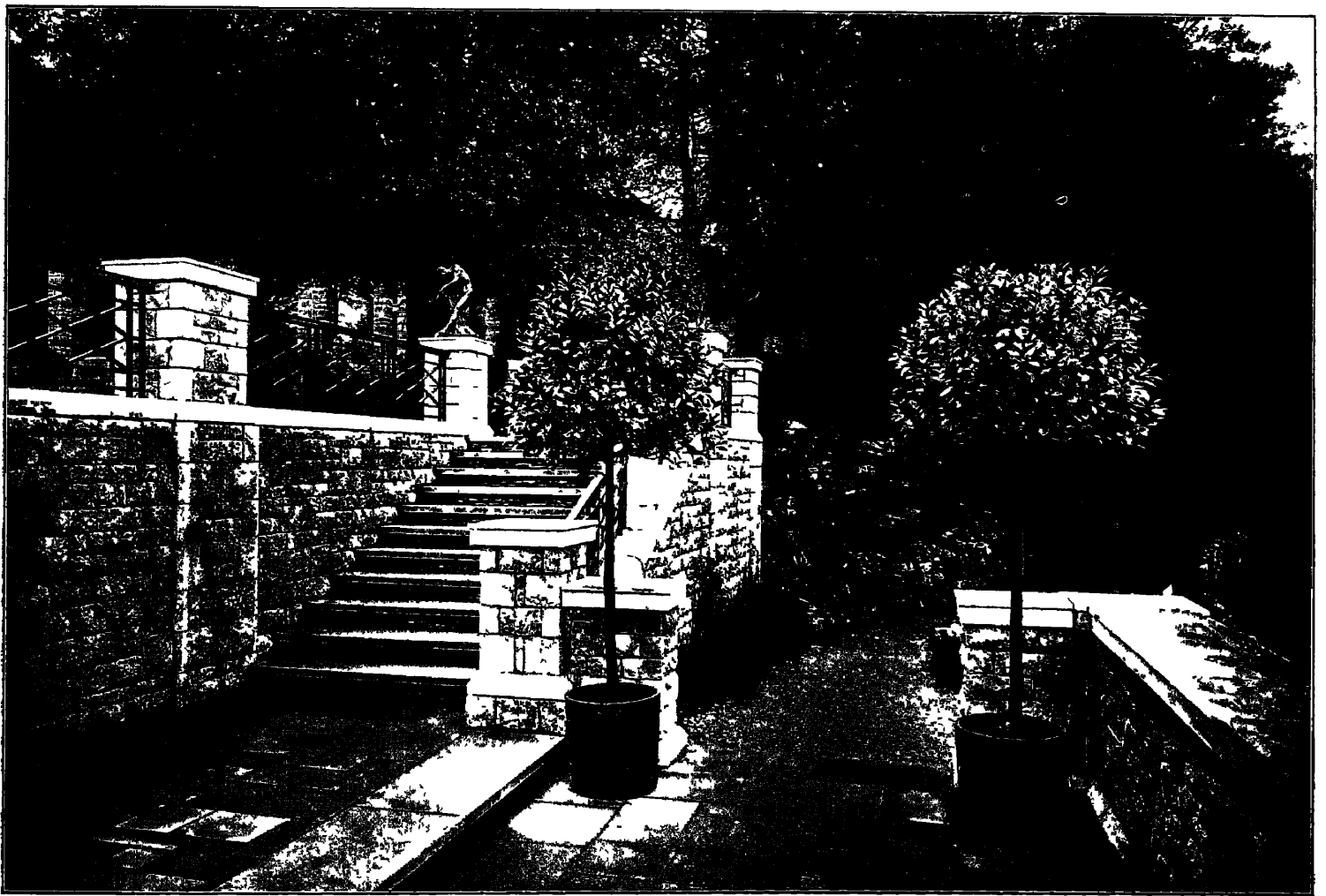


FIG. 118.—TERRACES LEADING OFF INTO WOODLAND WALK.



## TERRACES AND TERRACE GARDENS

with the gardens illustrated in this work are finished with a simple flag coping. Some have battered walls, and others have the surface broken up by pilasters or by sloping buttresses with balls or sugar-loaf finials over each buttress and lead urns or large vases to mark the sides of steps or angles. A retaining wall with the coping only a few inches above the inside ground level is usually sufficient where the difference in the levels is not more than three feet six inches, but where the drop is deeper, some form of protecting wall or balustrade, such as those shown in illustrations Nos. 122 and 123, is necessary. There are cases where there is not justification for a balustraded wall and yet the terrace looks unfinished without it. In such instances, a hedge of yew, privet or cotoneaster, planted close inside the dwarf wall, trimmed square and kept low, answers the purpose.

*Height of walls.*

The height of walls above the finished ground level on the higher side may vary from the dwarf wall just considered up to three feet three inches, the latter being known as "leaning height." Unless the fall to the lower terrace exceeds six feet, the best height for a solid wall is seventeen inches or "sitting height," while, for deeper terraces, it is safer to make it from thirty-three to thirty-nine inches high.

*Balustraded walls.*

Pierced or balustraded walls are seldom a necessity. In their favour it may be urged that, independent of the architectural effect, they add to the beauty of a terrace by allowing more to be seen of lower lawns and flower gardens than do solid walls. When the terraces are formed on the side of a steep hill and are therefore necessarily narrow and deep, as in illustrations Nos 120 and 121, the openings allow more of each level to be seen, and when viewed towards the house, they prevent the garden front appearing as though entirely formed of walls.

*Harmony with residence necessary.*

A terrace wall cannot, however, be considered as a feature separate and distinct from the architecture of the residence. A brick or stone mansion in the style and of the period of Inigo Jones, or a modern residence in which stone and brick are combined in the same way, require similar terraces. If stone dressings are used in the house they must also be used in the terrace walls; they might not extend beyond the quoins and coping, but in some form they are necessary to secure harmony.

Simplicity is to be aimed at, yet there are many instances in which it is necessary to use ornament. The charming examples of balustraded walls at Montacute, Brympton, Wilton, Haddon, etc., are each indispensable to their success, and manifest a pleasing fitness to the garden they adorn. Pierced walls accord with houses which are light in design, such as later Tudor residences, while iron bays between stone piers often form the best balustrade to a Georgian residence. As already mentioned in the chapter dealing with garden walls, quaint use may be made of local materials, such as land tiles and ridging tiles for small or rural gardens, but there is a distinct danger of extravagance which must be guarded against.

To give a clear impression of what is meant by simple and elaborate terrace walls, a series of designs drawn to scale of terrace walls designed for gardens planned by the Author, is given in illustrations Nos. 122 and 123. In addition to the examples in stone, there is one which may be interesting in its way, viz, a wooden balustrade designed for the terrace in front of an old house in Staffordshire. No. 116 shows a combination of brick with wood balusters. No. 122 shows stone terrace walls with bays of wrought iron filling in the circular sweeps.

*Steps.*

Steps are necessary features in a terrace scheme which may always be made pleasing. They, together with their flanking walls, lend themselves to a variety of treatment which renders monotony inexcusable, but, of course, use and convenience should be considered before mere effect. In nearly every case, both convenience and effect

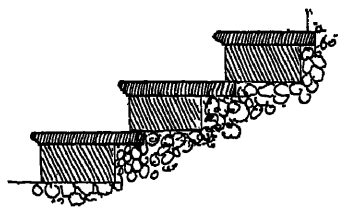


FIG 119.

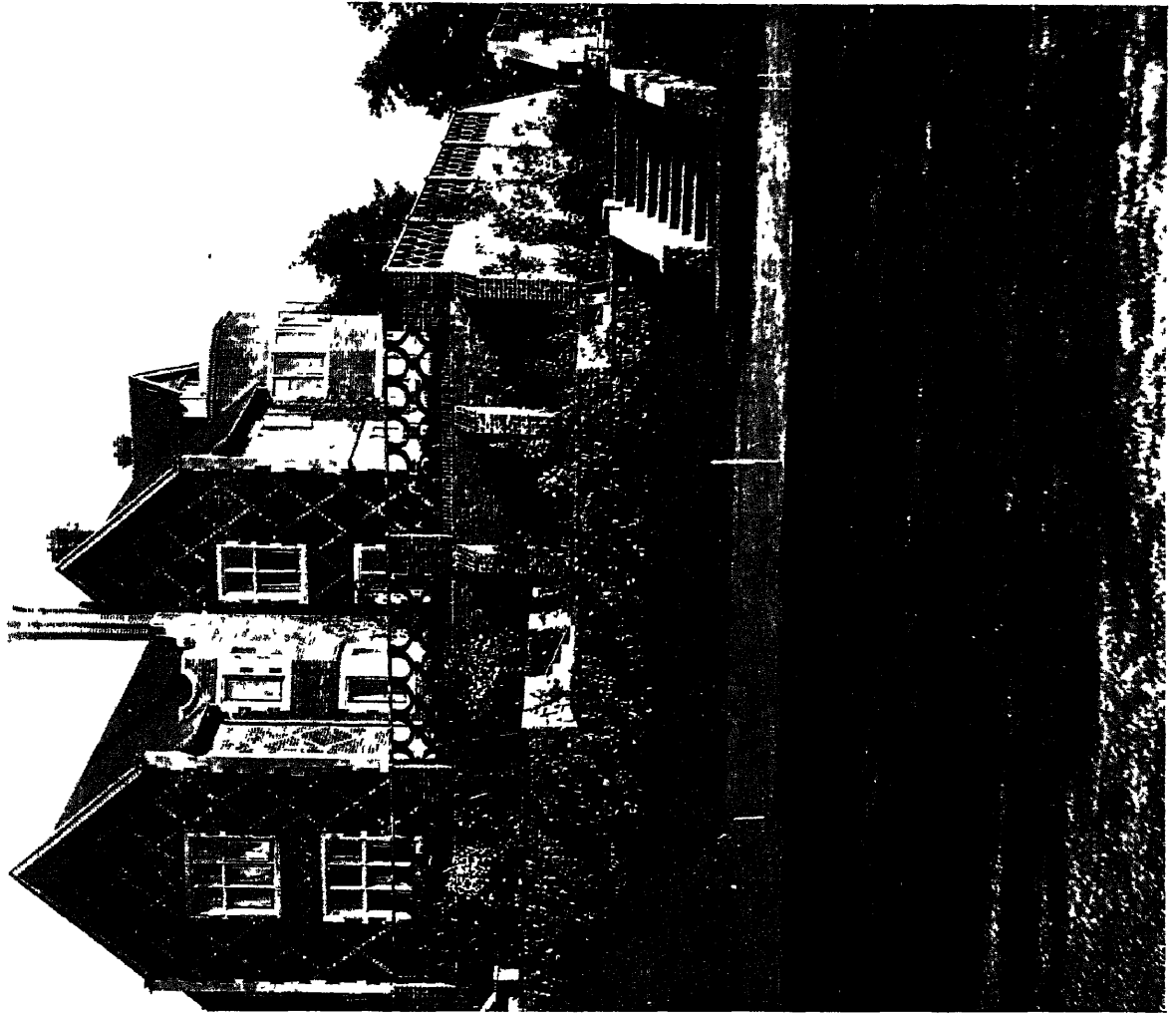


FIG. 121.—TERRACE WALLS AT KEFFOLDS, HASLEMERE.



FIG. 120.—TERRACE WALLS AT KEARSNEY COURT, DOVER.

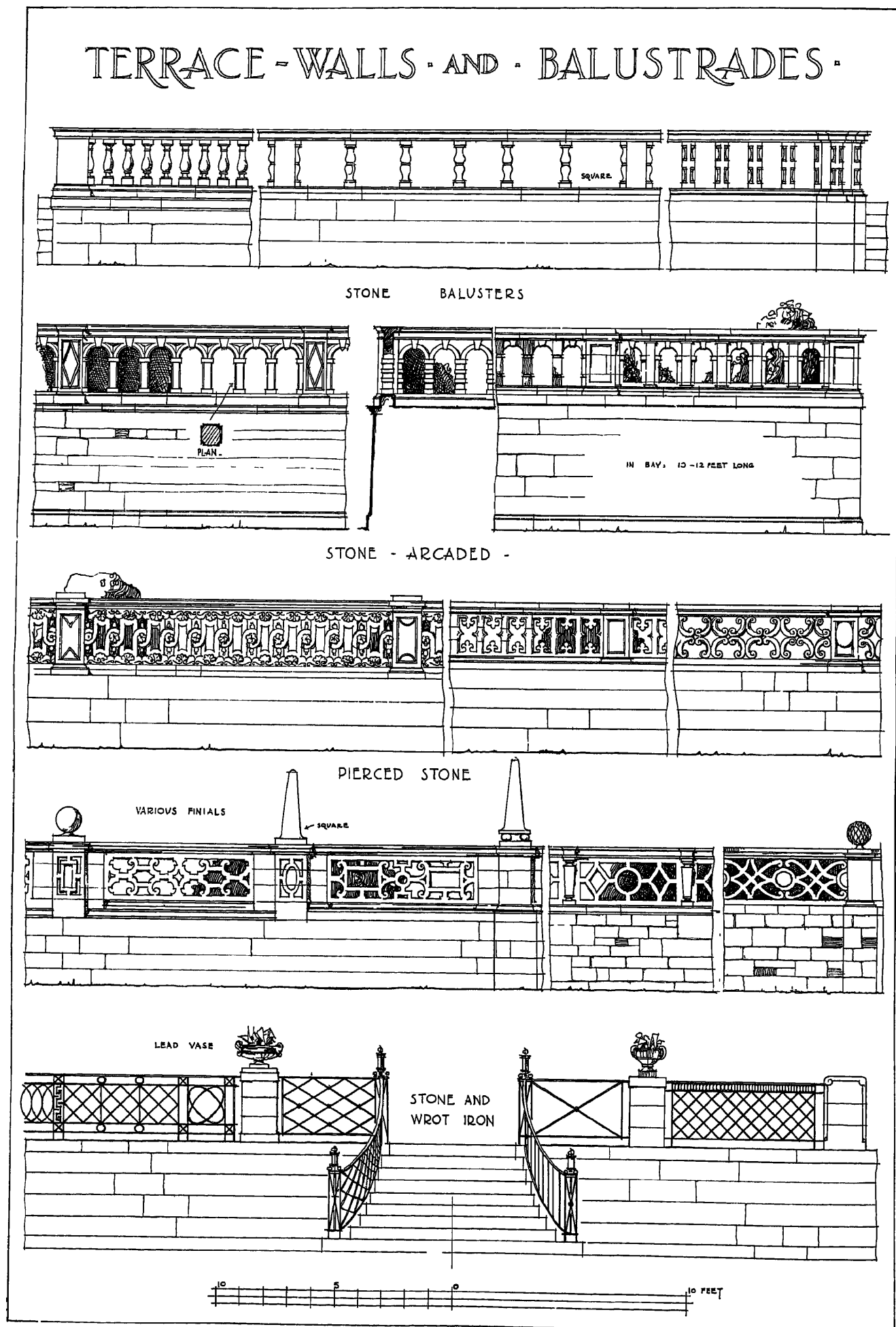
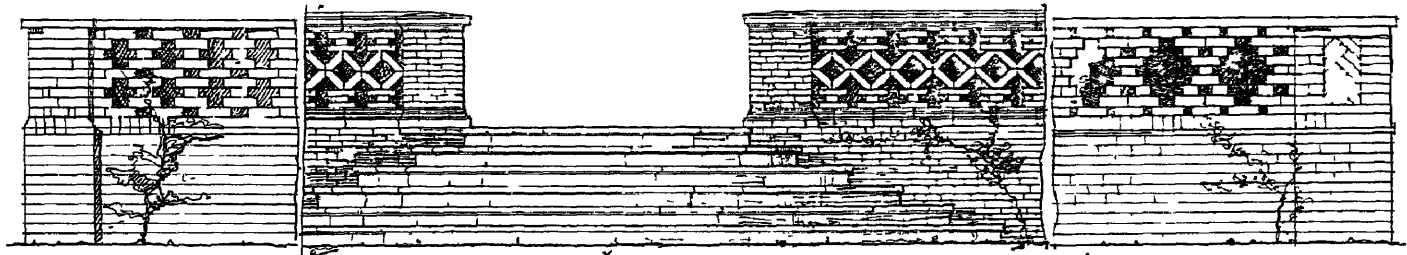


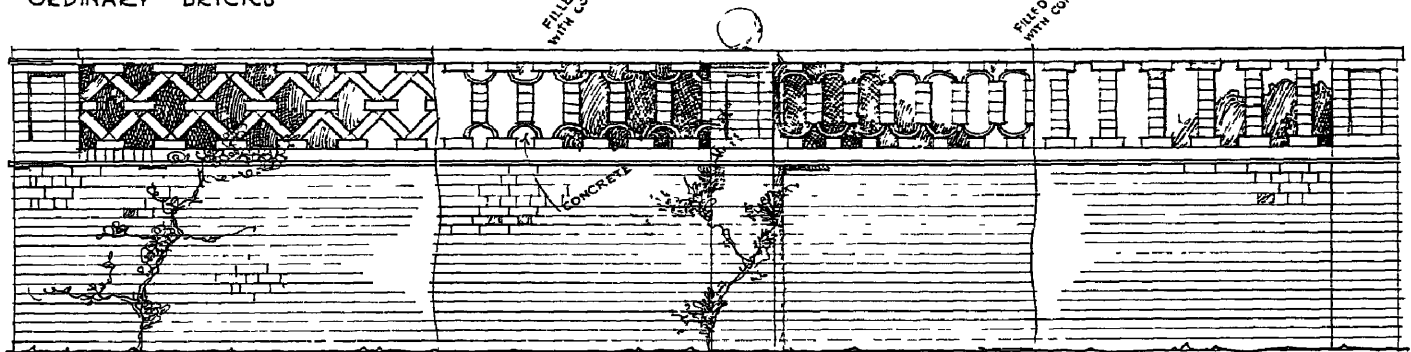
FIG. 122.

# TERRACE - WALLS - AND - BALUSTRADES

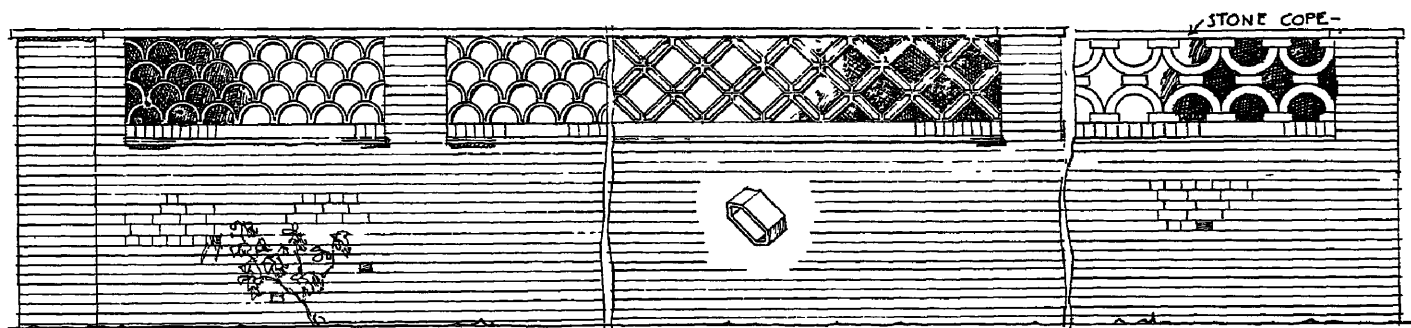
BRICK - & TILE -



ORDINARY BRICKS

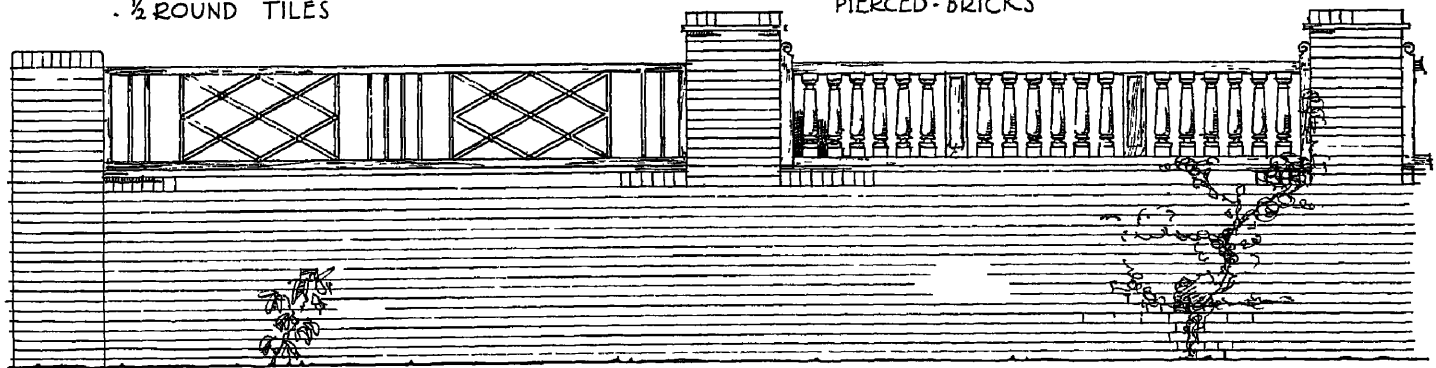


BRICKS &  $\frac{1}{2}$  ROUND - TILES -



$\frac{1}{2}$  ROUND TILES

PIERCED - BRICKS



BRICK - PIERS WITH WOOD BALUSTRADES -

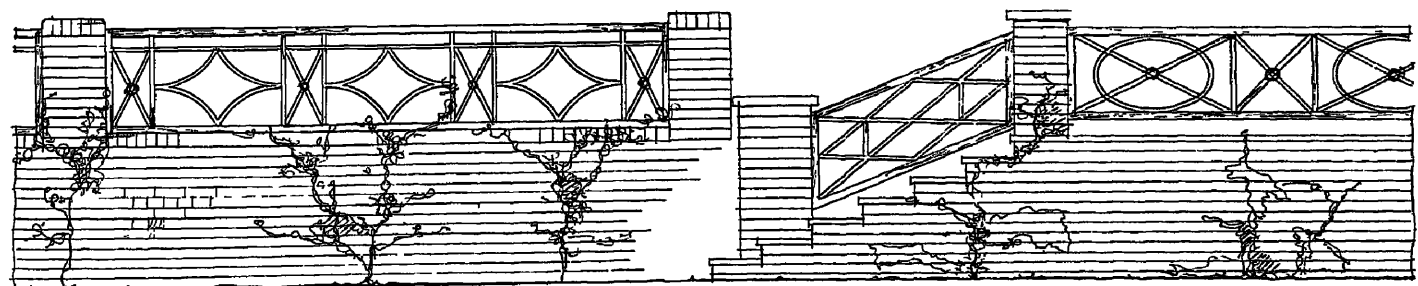


FIG. 123.

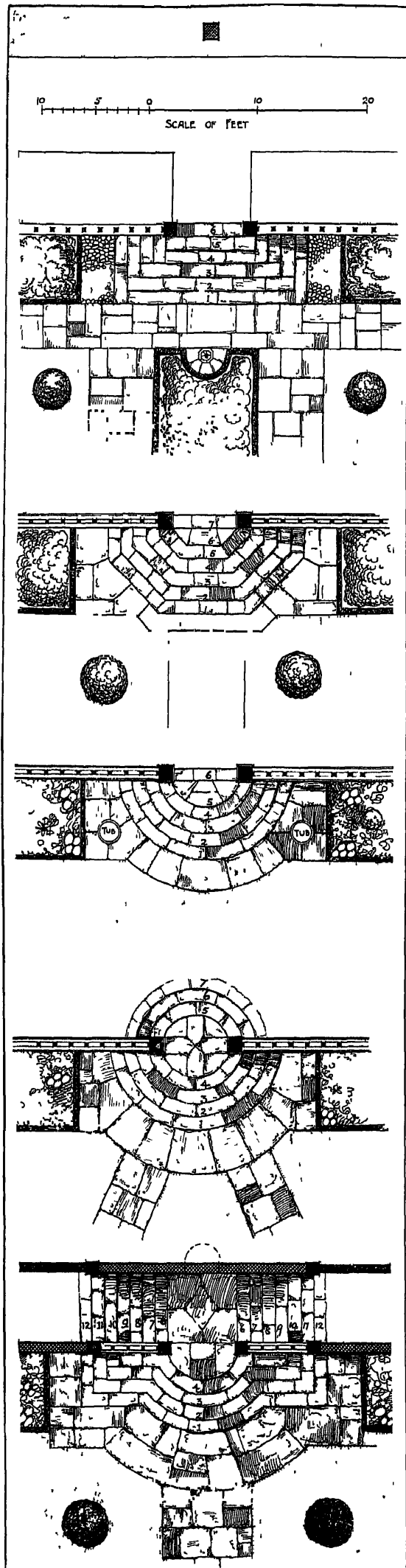
## TERRACES AND TERRACE GARDENS

are enhanced by making the treads of the steps broad and the risers easy. The size found to be most generally useful have a tread thirteen and a half inches wide, or with the projecting nosing fifteen inches, with a rise of five and a half inches.

*Steps in  
grass  
banks.*

Where steps are arranged in connection with a grass slope with a batter of one in two as recommended above, they could, of course, only have a tread of twelve inches with a rise of six inches, but a tread of thirteen and a half inches can be obtained by either working an inch and a half nosing mold on the front of a solid stone step, or, where it is built up of flags, as in No. 119, by allowing the flat stone tread to overhang the same distance. Where steps accompany deep terraces, it will be found advantageous to divide them into two flights, the landing being so arranged as to allow of a summer-house or tool-shed below, and a terrace bastion above, which may often be recessed sufficiently to take a garden seat, or one may be built in the same material as the walls and furnished with a loose lattice cover. Where, however, the steps do not exceed ten in number, they may be effectively arranged at right angles to the terrace, each side of the steps being supported by side walls, or where this would cause them to project too far into the garden below, half of them may be effectively arranged at right angles to the terrace, each side of the steps being supported by side walls, or where this would cause them to project too far into the garden below, half of them may be recessed back into the terrace, and the other half built as spreading steps without side walls (No. 127). Spreading steps are those formed without side walls as shown in Nos. 124, 125 and 126, and are most usually used where the difference in level between the inside and the outside of the wall does not exceed four feet six inches. They may be arranged as a semicircle (No. 126), a half octagon (No. 125) or square (No. 124), but whichever shape is adopted, they should have ample spread. In the perspective view of the grounds of Foots Cray Place, Sidcup (Ill. No. 504) will be seen

*Various  
forms steps  
may take.*



## TERRACES AND TERRACE GARDENS

a design which combines the best features of both semicircular spreading steps and a straight flight between retaining walls. Occasionally in very elaborate flights of steps accompanying early classic renaissance mansions, the balustraded side walls are curved so as to make the steps broader as they go down. This arrangement has much the same effect as spreading steps, and exactly the same *raison d'être* in allowing the steps to be approached obliquely from below where a path runs right and left from their base.

Where the terrace is supported by a very low wall only two or three feet high, very wide steps add effect of the terrace. Thus, for a summer-house centring upon a

*Width.*

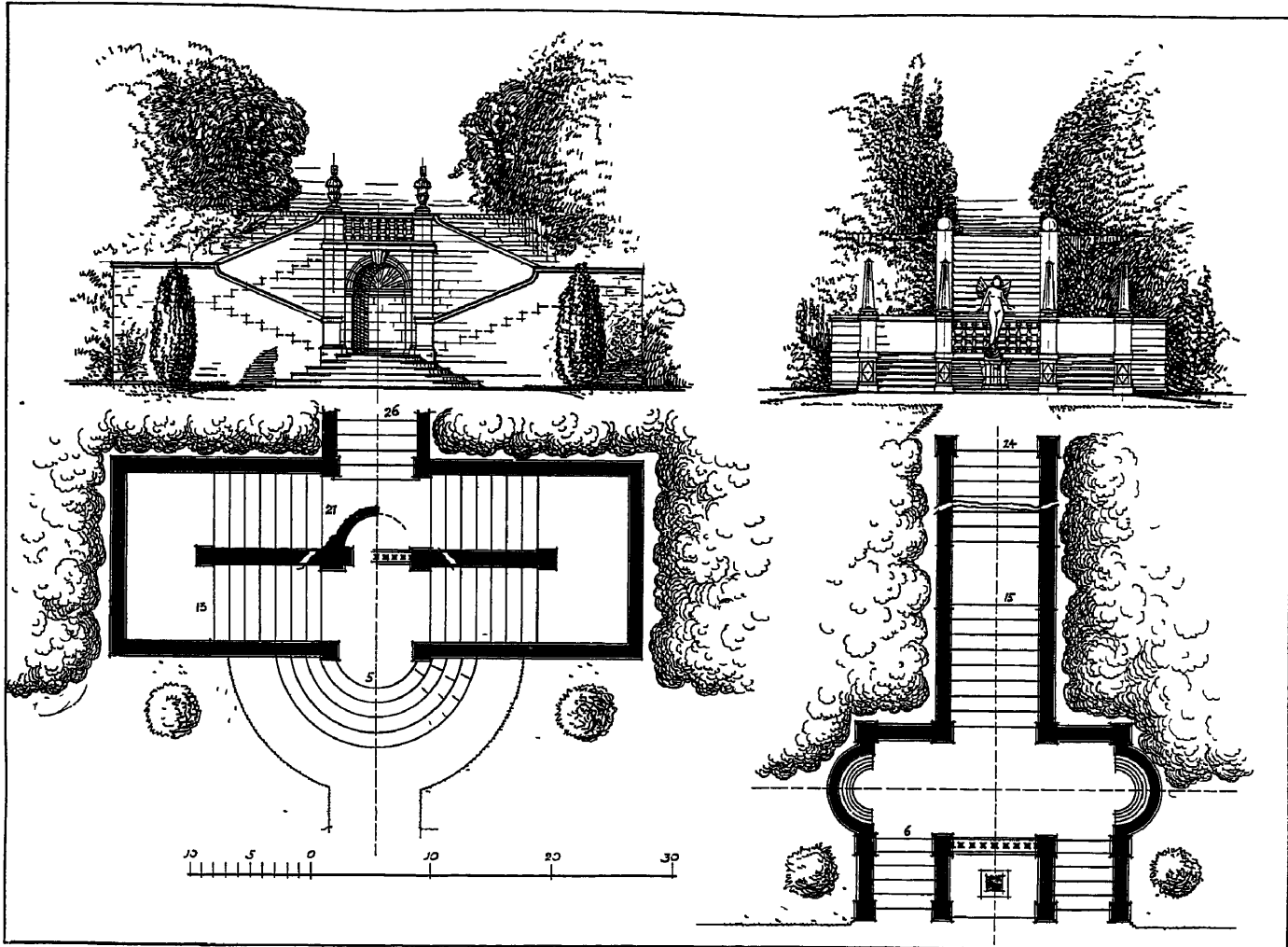


FIG. 129.

FIG. 130.

verandah, I proposed steps thirty feet in length, extending across its full breadth, the work, when carried out, producing a pleasing effect at a comparatively small cost.

Long flights of steps give opportunities to invent easy and convenient connections between varying levels and also to secure striking effects. To obtain the first, change of direction and frequent half-landings are essential, with seats or rest-houses at points of interest when a great number of steps is necessary. Unless, however, alternative sloping paths are provided for reaching the higher levels, repetition of flights on the same axial line should be avoided. The magnificence of the great stairway at the Villa d'Este at Tivoli is often quoted as the grand model for a straight-up series of steps, but those who know these gardens will have discovered the alternative easier ascents. As an example of a change of direction, (No. 129) is a plan and elevation of a terrace scheme on a mountain side, the total drop of twelve feet being divided into twenty-six steps. A second drawing (No. 130) shows the solution of a similar problem but with a rise of only nine feet, while the third (No. 128) gives another arrangement where a sense of ease is secured by spreading out the steps. Here the rise is about six feet six inches.

*Long flights.*

## TERRACES AND TERRACE GARDENS.

*Construction of steps.*

Steps may be constructed in a variety of ways with different materials to harmonize with different styles of architecture. We have already spoken of those cut from solid blocks of stone and those built up of flags. Others may have the tread of flags and the risers built in rough local stone or brick, or, where an even freer treatment is called for, the flag may be a narrow strip along the front of the step and the back be filled in with cobble paving. Where the architecture of the house and terrace walls is of brick, especially where a wooden balustrade is added as described above, effective steps may be made to match, with a strip of English oak about four inches wide and three inches deep along the front of each step, the tread at the back and the riser below the oak being built of rich brown-red brick.

*Surfaces of terraces.*

Terraces may have their surfaces finished in many ways, and those not immediately before the house will form gardens of various kinds. That which is immediately under the windows of the principal rooms and which is usually a comparatively narrow outlook promenade

from which the rest of the grounds and the prospect are viewed, will however, need special treatment. If it is to be available for promenading at all seasons of the year, it means that a dry path underfoot in the winter, flagged or paved, must be provided. It is not necessary that it be paved all over. Sometimes panel-shaped flower-beds will be cut out of the paving, in others there will be a paved path with grass at either side with or without flower-beds in the grass, or there may be a flower border with a stone edging on the side of the paved path nearest the house and grass on the other side. A still freer treatment would be obtained by having a gravelled path with a row of flags down the middle, making a line of paving about two feet six inches broad, or a similar strip of flags might be laid with cobble paving on either

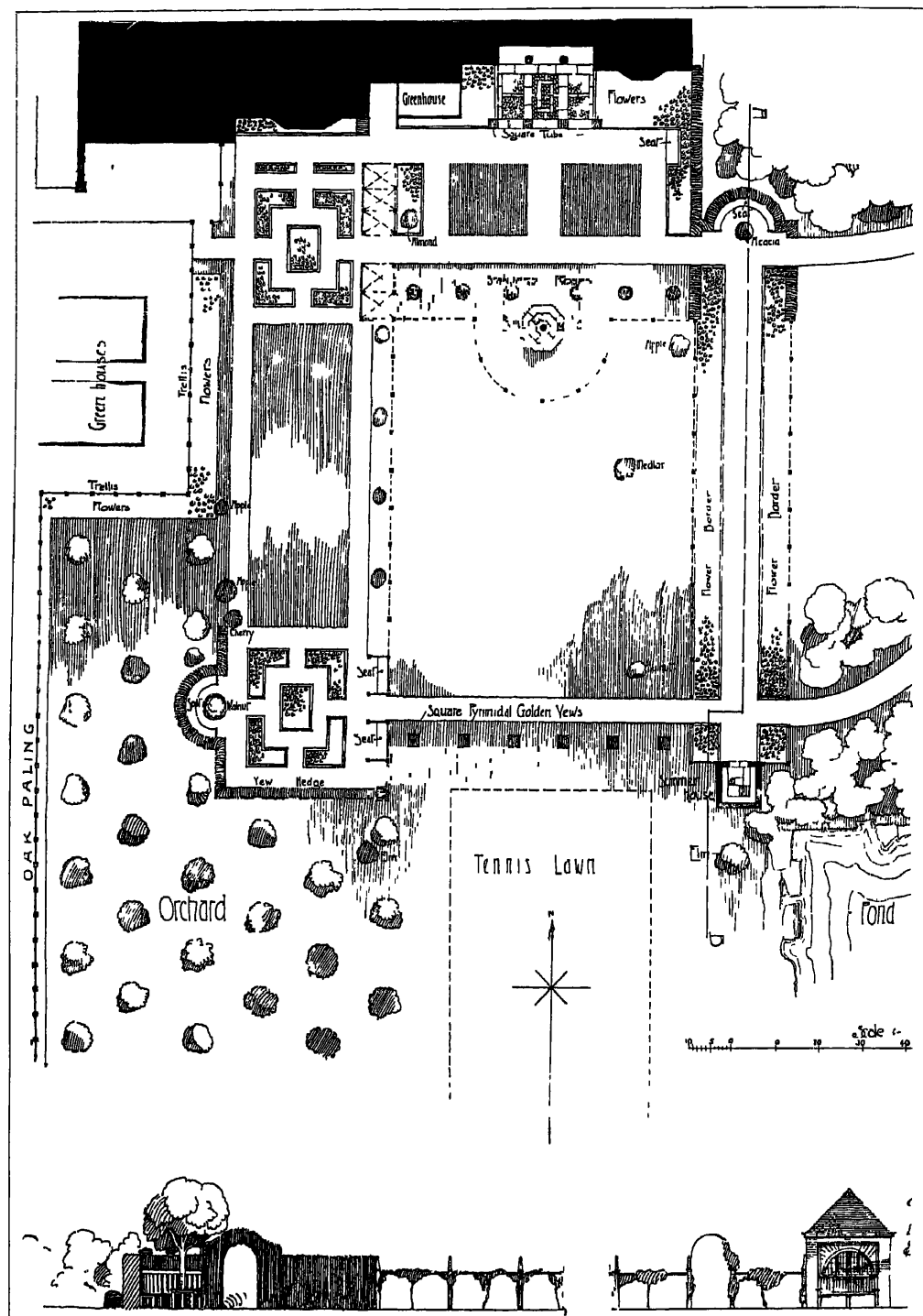


FIG 131.—PLAN OF GARDENS AT THE GRANGE, WRAYSBURY.



FIG 132 —PAVED GARDEN, THE GRANGE, WRAYSBURY, NR STAINES.



## TERRACES AND TERRACE GARDENS.

side. Such arrangements open the way for harmonious colour schemes where these would be in keeping with the architecture, for instance, in a south Cumberland garden, one might combine the rich red sandstone with the blue-grey local cobble paving, and in other districts one may have cobbles and brick, cobbles and stone, or two colours of slate, blue-black and green, or two shades of green.

*Flower beds  
on the  
terrace.*

The formation of flower gardens and lawns being dealt with elsewhere, it is only necessary here to deal with their application to the terrace scheme. Generally speaking, beds of a definite panel design and divided by narrow walks about two feet six inches wide are better than those cut out of grass. Where grass is preferred as a background, the widths between the beds should be greater than where gravel, as narrow strips of grass constantly lose their shape and level appearance. The proportion between walks, grass and borders, will need careful arrangement, as one or the other should predominate, and the others be made subservient to it in the scheme of decoration.



FIG. 133.—LEES COURT, FAVERSHAM

*Games—  
lawns on  
the terrace.*

Tennis courts, croquet lawns, and bowling alleys (the sizes and practical formation of which are dealt with in Chapter IX) in their demand for level unbroken stretches of greensward, are peculiarly suited to the terrace scheme. The advantage in placing the lawns and greens near the house, is that the figures give a distinct sense of animation.

The level stretches of restful greensward which tennis courts, croquet lawns and bowling greens necessitate, are themselves a valuable artistic asset. They are happiest on the second terrace which is usually a broad one; the higher terrace next to the house is generally too narrow to include them.

The house is then an elevated point of vantage from which to view the players; the accessory rest houses and covered seats needed can be artistically woven in as

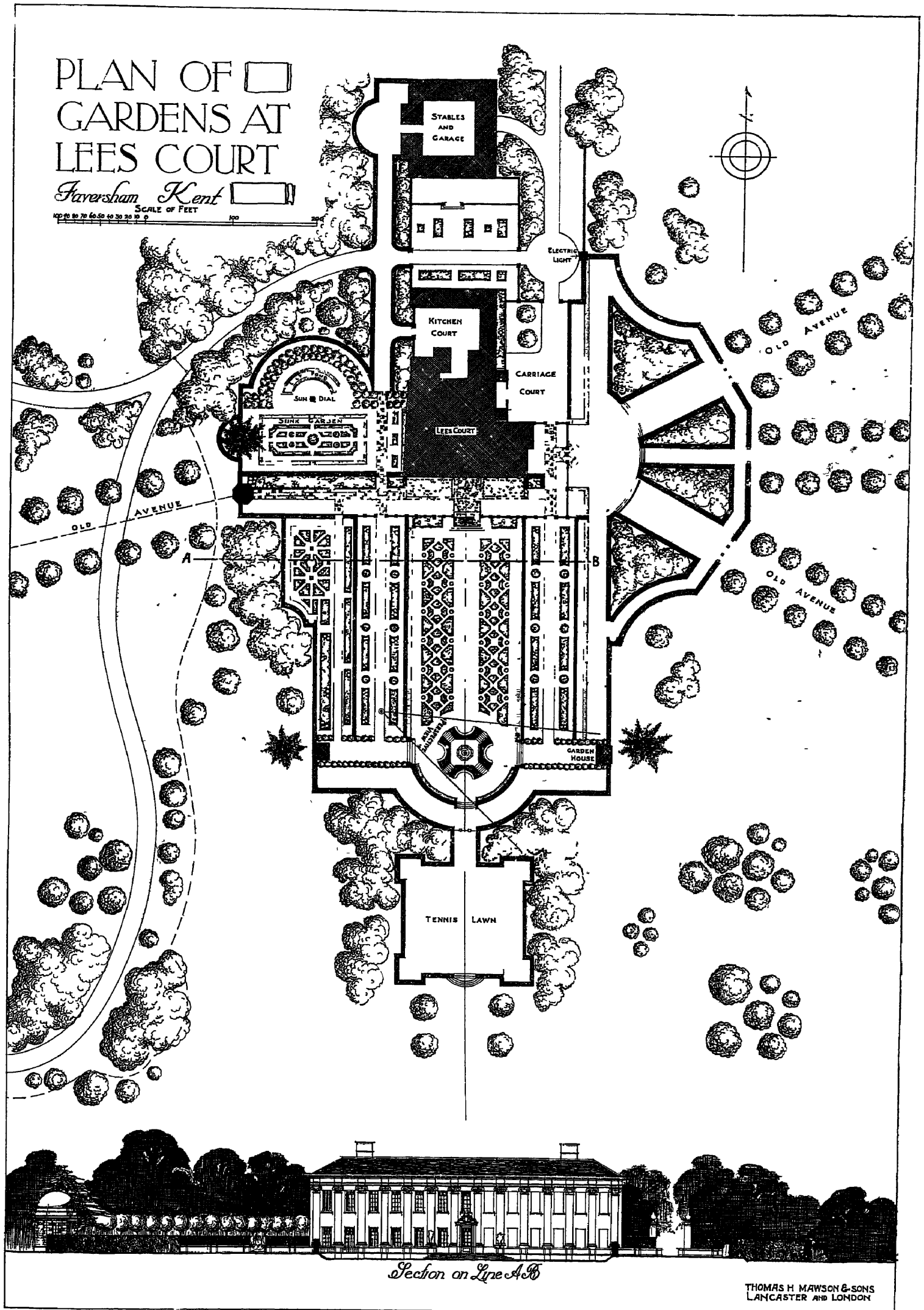


FIG. 134.

## TERRACES AND TERRACE GARDENS

features, additionally also the tea-houses, covered and shady seats, stores for nets, racquets or bowls, and other necessary architectural adjuncts of such quiet games, can be made a part of the terrace scheme

Most of the gardens illustrated have tennis lawns placed close to the house, and in positions overlooked by the principal apartments. Nearness to the house is the more necessary where the lawn is to be used exclusively for croquet, a game wherein neither natural force nor physical endurance secure an advantage, and which is a game peculiarly adapted to elderly people, who would be induced to play often if the lawn is accessible. For this reason, it should be protected from east winds and in other ways made as snug as possible by the provision of sheltered seats and arbours, and where necessary, be enclosed by stout yew or holly hedges. The dimensions of the recreational spaces such as tennis lawns, croquet lawns and bowling greens and their formation are dealt with in Chapter IX.

*Gardens too flat for a terrace.*

Many persons express disappointment because their gardens are all on one level and they therefore conclude that it is

useless to attempt any distinctive arrangement, and in particular, that any substitute for a terrace scheme is impossible. By way of reply a plan is given of the gardens laid out for G. M. Freeman, Esq., K.C., at Wraysbury, near Staines (Ill. No. 131), omitting for want of space a formal lily pond at the end of the tennis lawn.

The point which it is particularly desired to emphasize in this scheme is, that although it is impossible, from the level nature of the site, to obtain even a slightly raised plateau, still the whole spirit of a terrace as well as its practical advantages has been caught in the paved panel garden in front of the house which is more plainly shown in the photograph (Ill. No. 132). Thus no one need despair of obtaining a

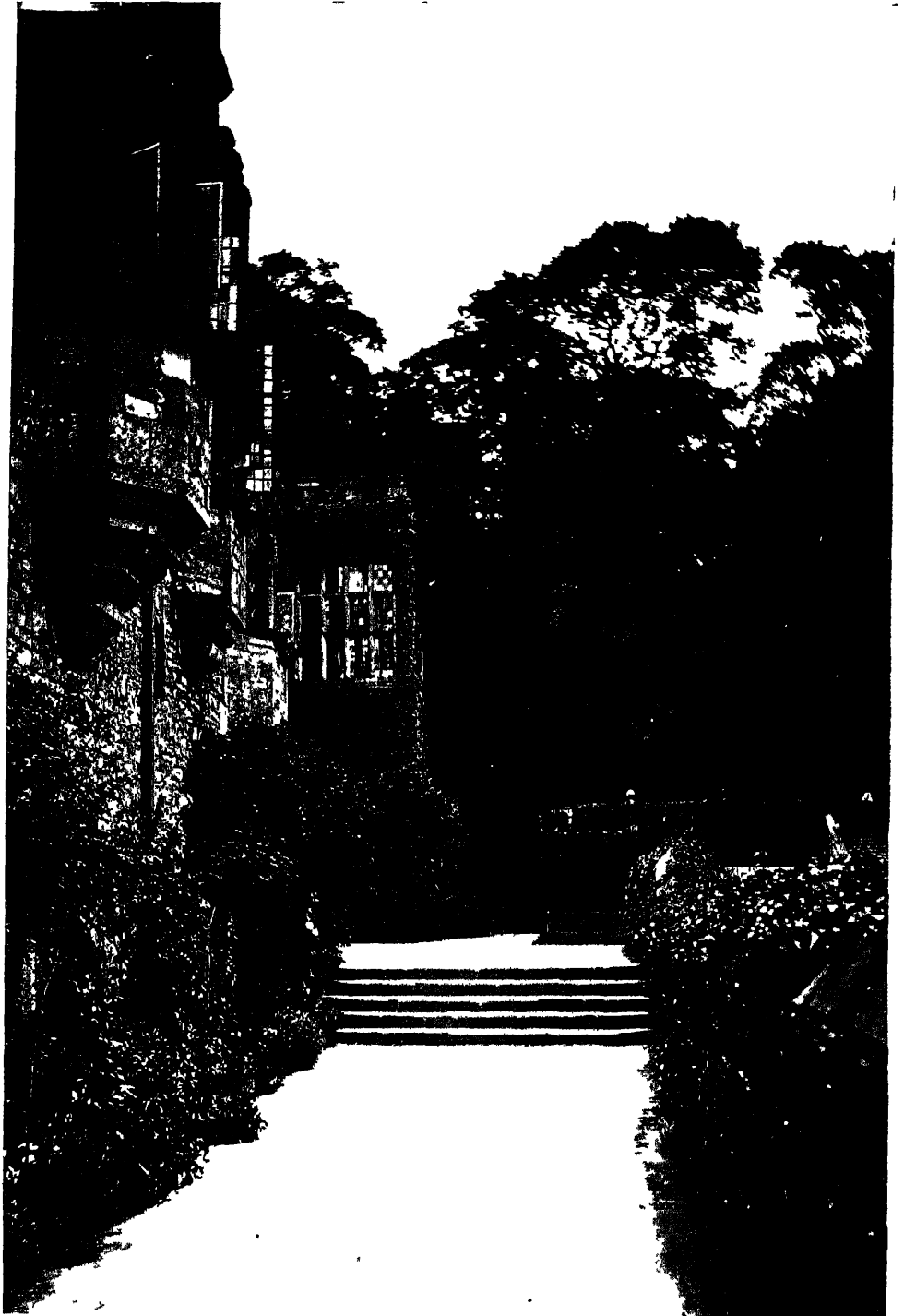


FIG 135 —HADDON HALL, AN OLD HILLSIDE GARDEN.

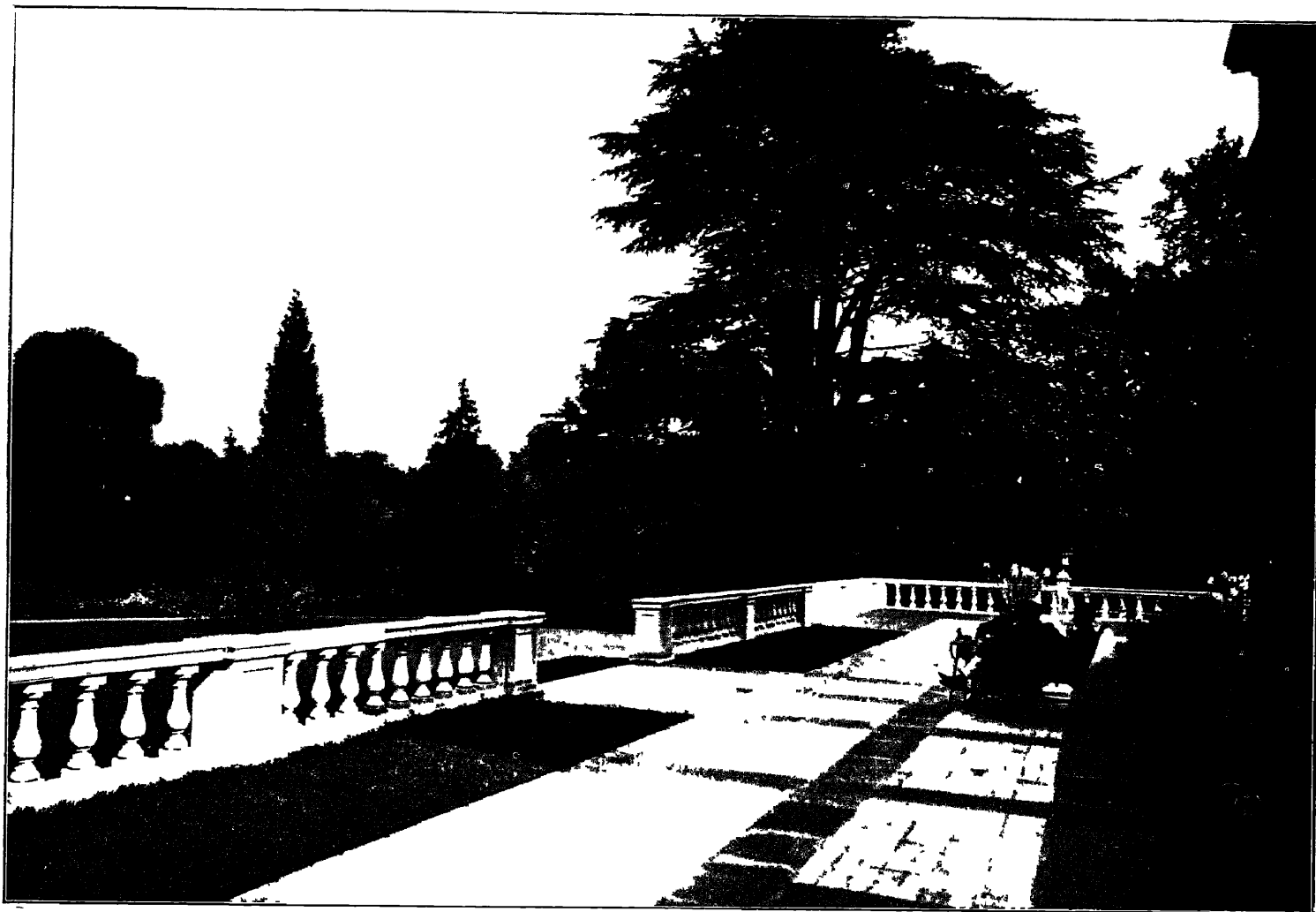


FIG. 136 —TERRACE AT WOOLLEY HALL FOR W. H COTTINGHAM, ESQ

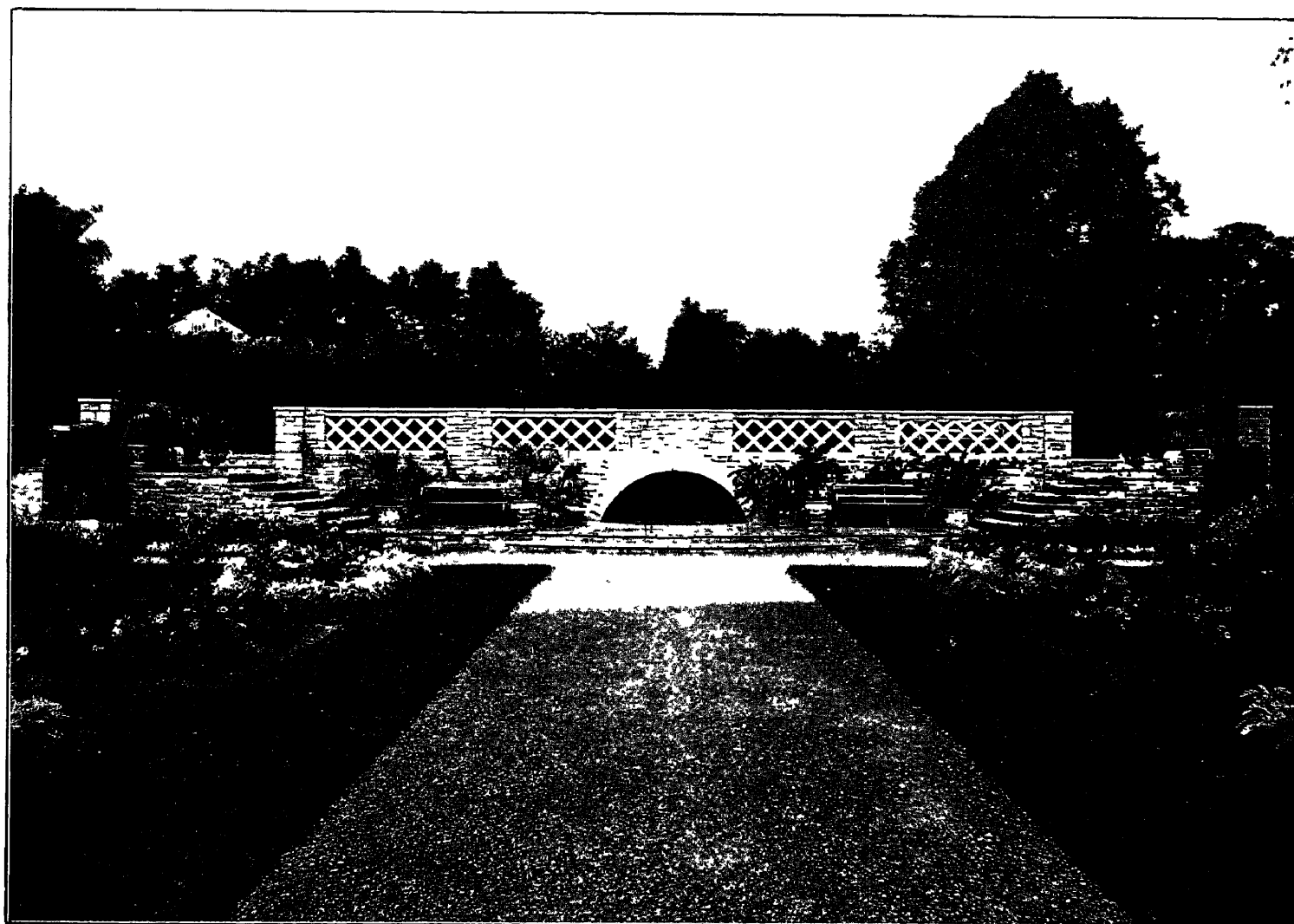


FIG. 137.—DETACHED TERRACE AT DISTANCE FROM THE MANSION, DUFFRYN, CARDIFF.

## TERRACES AND TERRACE GARDENS

*Terraced  
effect by  
formation  
of sunk  
gardens.*

terraced effect even on a flat site, and this effect can be considerably helped by the formation of sunk gardens, thus obtaining greater contrast in the levels. A typical example is shown in the illustration of the gardens at Little Onn Hall (Ill. No. 379).

A successful experiment in this direction on a somewhat extensive scale is shown in illustrations Nos 133 and 134, representing gardens laid out at Lees Court near Faversham, for Mrs. Halsey. The south front is an example of the work of Inigo Jones (now unfortunately almost entirely destroyed by fire), and the main garden is on this front. Here a low terraced effect was obtained by sinking the rose garden and forming the broad central grass walk at a level of two feet below the main flagged terrace as shown in the photograph and indicated on the section at the foot of the plan. This method of obtaining a terraced effect by the formation of sunk lawns can often be adopted with great effect, especially on light, well drained soils. In wind-swept gardens, such as are often met with along the coast, they not only give elevation to the house and variety to the garden, but also ensure sheltered spaces for flowering plants.

In exceptional instances a terrace may be made at some distance from the house as in the instance illustrated No. 137, which was erected at Duffryn, near Cardiff, for Reginald Cory, Esq.

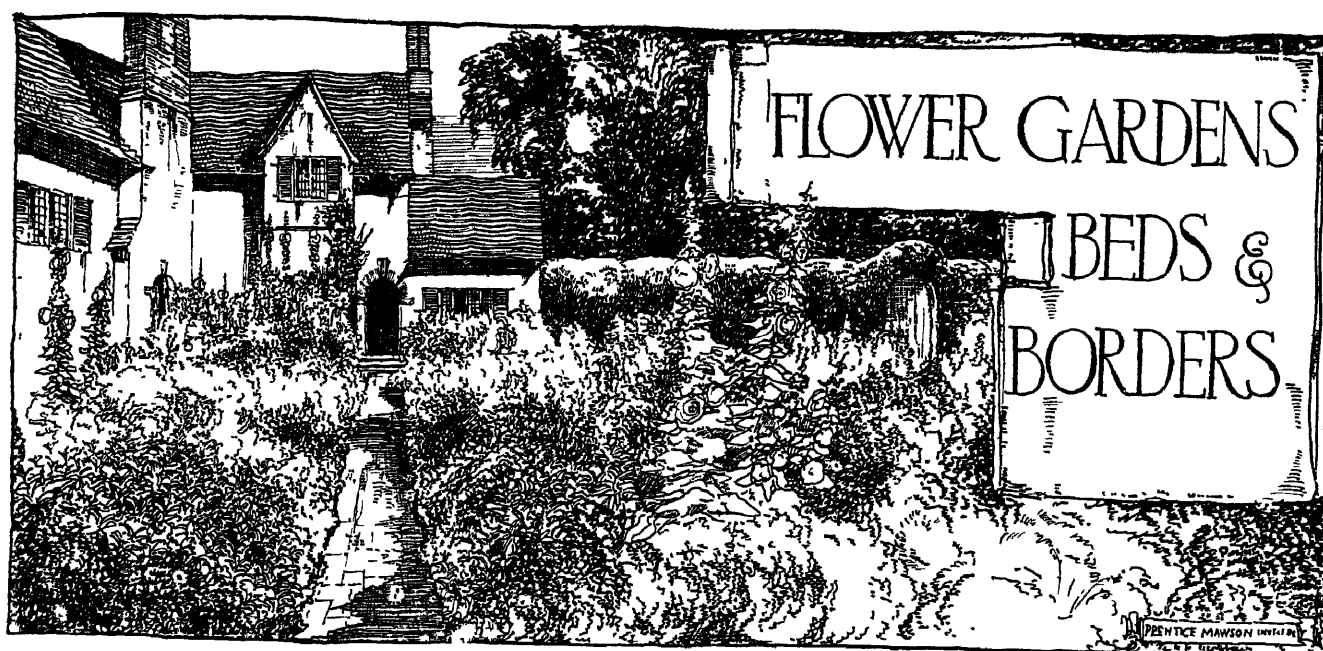
A flat piece of ground usually possesses the quality of breadth so difficult to obtain on a hillside and, in treating such a site, the fullest advantage should be taken of the least rise or fall, and all differences of level emphasized. The mistake made by many garden designers in the past has been the endeavour to produce unnatural undulations and mounds, instead of being content with the predominating note which the site already possessed and making everything harmonize with it.







FIG. 138 — ROSE GARDEN AT HAMPTON-IN-ARDEN



## CHAPTER VIII.

In the immediate provision for flowering plants, we reach what is, in one way, the culminating point of our subject, for not only are they the finishing touch in the composition, the feature up to which everything else in the whole scheme leads, but they must appeal to every garden lover, for, unlike many other items of garden equipment, their use is essential to every class of domain, be it large or small.

Whether the garden be formal or informal they are equally necessary, if the garden is worthy of its name. The architectural garden is more dependent upon the flowers than the landscapist, because in a formal garden they form an integral part of the scheme, whereas in the landscape garden they are often incidental and super-added adornment, and may even be intruded in such a way as to detract from the *tout ensemble*, as when flower beds cut up an otherwise well-arranged lawn.

*Importance  
of flower  
beds to  
scheme as a  
whole.*

The landscapist could form an interesting garden with the sole aid of trees, shrubs, greensward and water, but the formal gardener depends on flowers to clothe his balustraded walls, drape his pedestals, break up his flat areas, give vivid colour contrasts against the dark green of his clipped hedges, and everywhere relieve angularity with the waywardness of growing things. All architectural gardening is, in fact, designed from first to last either as a background or skeleton for flowers and climbers, as when the arbour is covered with foliage, or stands in bold relief against a mass of greenery, or to centralize a flower grouping as does the sundial in the middle of the rose garden.

In the landscape garden of fifty years ago, when terracing had fallen almost entirely into disuse, garden designers succeeded in obtaining many pretty effects by the arrangement of gently undulating lawns with shade trees on the outer fringe and as occasional groups on the lawn, and such gardens were usually embellished with a series of orderly arranged flower beds. The same system has been effectively copied in American gardens, especially when the house is in the colonial Georgian style, frame-built and painted white. Under such conditions the bright geraniums, begonias and verbenas are most attractive. In the British Isles, a similar treatment of beds and lawns obtains, but quieter colour effects are to be desired.

Generally speaking even in rugged gardens which have a plentiful outcrop of rock and boulders, flower borders are almost invariably included which necessitate a certain amount of levelled spaces, and in this way formality is introduced. This proves that every one who approaches the subject of garden design intelligently must dispense with unyielding notions, and must recognize that contrast, colour and rhythmic order, are essentials.



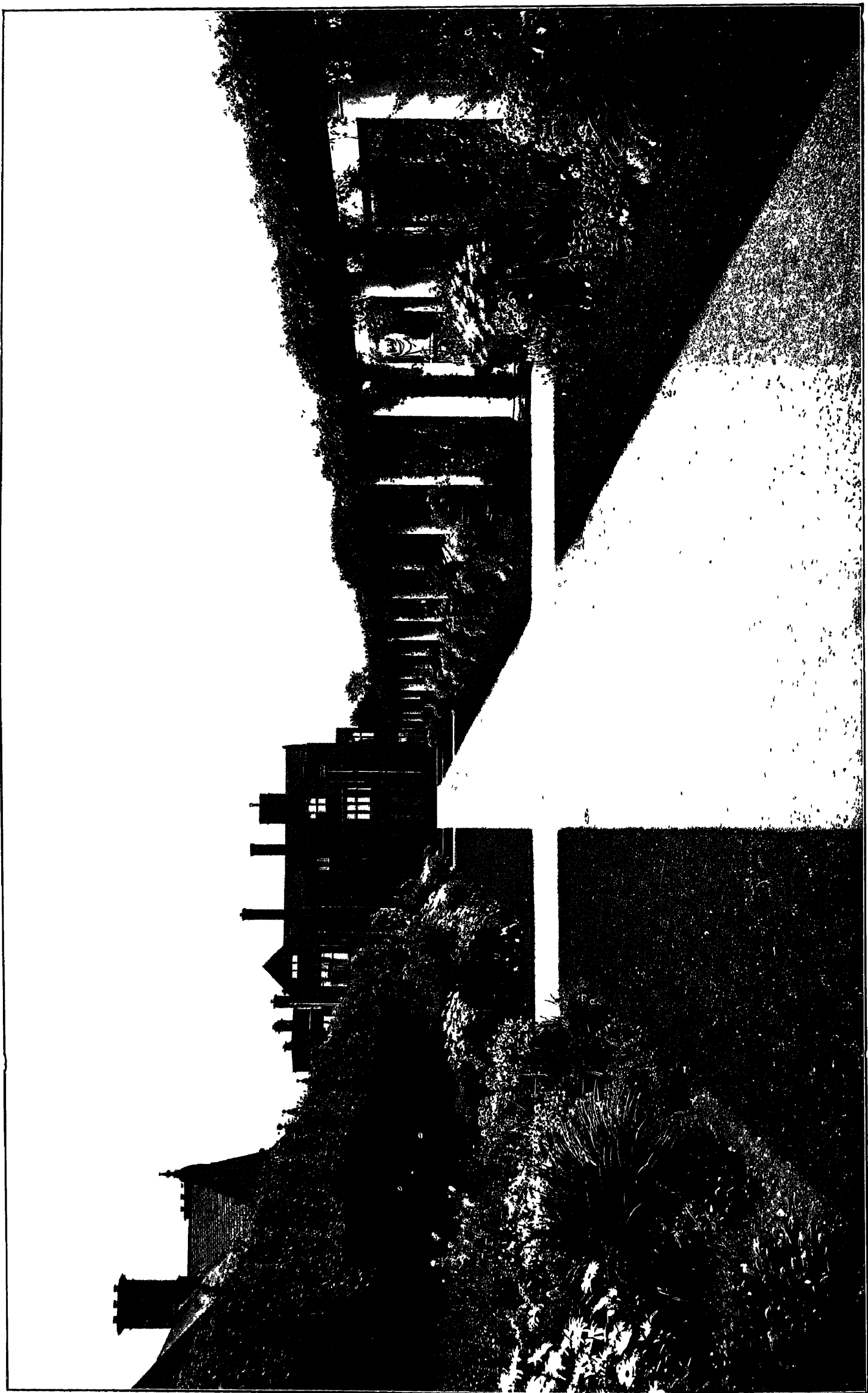


FIG. 139.—HERBACEOUS BORDERS AT THORNTON MANOR FOR LORD LEVERHULME.

In formal schemes the flower beds are usually grouped round the house as the decorative accompaniments of the residence, but in the landscape garden they are treated as "places apart," except perhaps, for a narrow border round the house and a few choice beds along the main walk. This is logically the position of the two schools of garden design, the first of which aims at a geometrical composition softened by nature, the latter produces a trim design based upon natural landscape, with its parts emphasized by art.

*Flower beds in formal and informal schemes.*

Nevertheless both schools have much in common, one of the most important points being the correct proportioning of colour spaces, together with the tone of the colouring and the question as to the season when each bed or portion of the composition should be at its best. If, for instance, there are large groups of rhododendrons which provide sheets of vivid and alternating colour in late spring, but are masses of monotonous green in summer, the flower beds and borders should be at their best in July, August and September, for rhododendrons in full bloom in June will not brook competition.

Other important points common to all flower gardens, are the formation of the borders themselves and their size and shape. With regard to the former, it is of the utmost importance that both the preparation of the soil and drainage should be thorough in the first instance, as the success of the garden depends entirely upon this. As to the methods to be employed, all that is said in Chapter XV. on this subject applies equally to the flower garden, and it is only necessary to add that the object should be to form a soil neither too light nor too heavy, but lighter in a naturally moist situation and *vice versa*, except in the rose garden, where a heavy clayey soil is demanded, as rose-trees prefer this. In any case, flower beds should not be formed round shrubberies, or near large trees or shrubs, which unduly rob them of nutriment.

*Form and shape of beds.*

The adoption of simple forms of flower beds and the avoidance of puerile and ridiculous shapes would seem a matter which would need no urging, yet a visit to



FIG 140

most gardens will show that a word of caution on this subject is necessary. It is not that attention has not been drawn to the matter by writers on gardening, for even a hundred years

ago, Nichol, who styled himself "the Horticultural Architect," wrote:—"A variety of forms (of beds) may be indulged in, without incurring censure, provided the figures be graceful, and not in any one place too complicated. An oval is a figure that generally pleases, on account of the continuity of its outline, next, if extensive, a circle. Next, perhaps, a segment in form of a half moon, or the larger segment of an oval. But hearts, diamonds, triangles, or squares, if small, seldom please. A simple parallelogram, divided into beds running lengthwise, or the larger segment of an oval, with beds running parallel to its outer margin, will always please." By "half moons" no doubt the writer meant crescent moon shapes which are not only difficult to fix in with a design, but are the worst for effective planting.

The shape and size will, of course, be largely influenced by the size of the parterre and the nature of the flowering plants to be used, but in any case, fancy patterns are to be avoided, the simpler the design of the beds the better. Compare the number of flowers which can be grown in an oblong, say, twelve feet long and five broad, with the number grown in beds of the same superficial area divided up into curves and acute angles. In the latter instances, although the same quantity of soil surface is provided and more room is monopolised, the flowers do not fill up the multiplicity of long narrow points, which are useless. Quite apart from these practical considerations, however, simple forms are best, because complicated shapes are distracting to the eye and claim attention for their own sake, whereas they should be considered as a background to the flowers and not as a competing feature. Plain oblongs cannot always be employed

## FLOWER GARDENS, BEDS AND BORDERS.

of course, but these relieved by circular beds, such as those shown in the accompanying sketch (Ill. No. 140), or the other arrangements shown in illustration No. 141, are adaptable to a large number of cases where beds line either side of a path, and may be further varied by the insertion of posts for climbing roses at regular intervals, or rose arches across the path. The plan of the panel garden at Wraysbury, near Staines (Ill. No. 131), shows an effective and simple arrangement of beds which will bear repetition, or might, whilst retaining the general characteristics, be alternated as in illustration No. 142. The spaces between the beds should not be too great where they are divided by gravel paths, or the gravelled area will appear obtrusive, but where the beds are cut out of grass, the strips between them should be wide enough to take a mowing machine and allow of the necessary trampling incidental to the care and trimming of the plants, without being denuded.

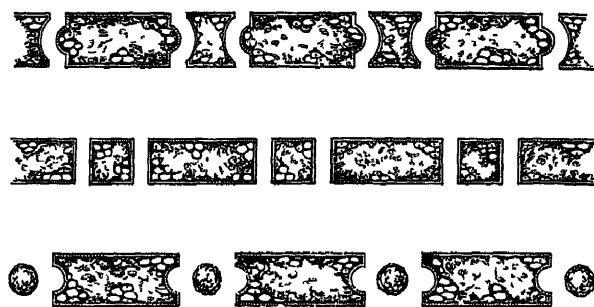


FIG. 141

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asses.

A further important point is the provision of beds large enough to allow of the plants being arranged in masses. Every student of the works of those artists who make a special study of garden paintings, realizes that they all glory in large masses of brilliant colour produced by growing a quantity of one sort of plant together. Many years' ago, Mrs Siddons, the actress, in her garden on the Harrow Road, set this estimable fashion, and one wonders that it has not been more universally followed. The sizes of the beds for this purpose must, of course, be regulated by the scale of the flowering plants they are to accommodate; for instance, borders in which oriental poppies, anchusas, delphiniums and hollyhocks are to be planted, must be wide, and should be long in proportion to their width. On the other hand, beds which are to be filled with lesser plants such as pinks, pansies, lavender, &c., must be much smaller. A good average width for a border to be planted with the larger herbaceous plants is nine feet; beds for smaller things may vary from this down to only two feet broad.

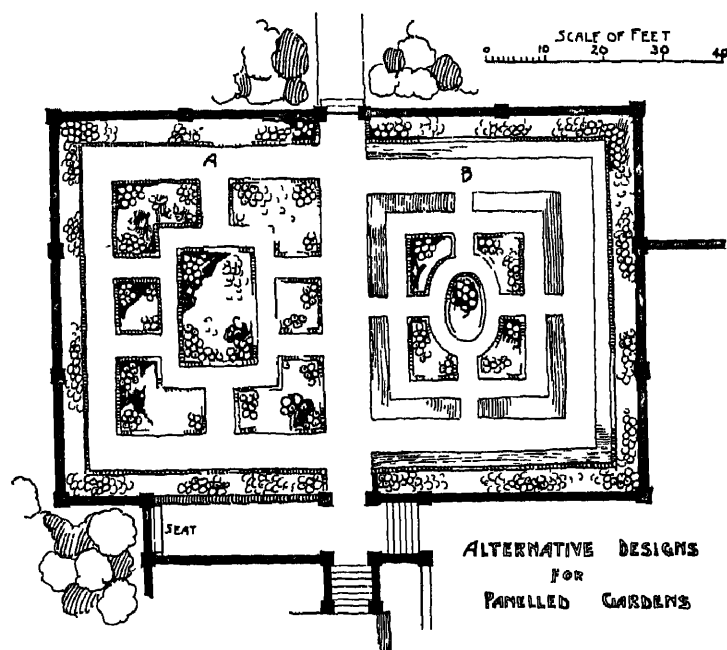


FIG. 142

Again both formal and informal gardens may have their parterres devoted to one special class of plant or flower, as in the case of the rose garden, herbarium for medicinal plants, or the Alpine garden. Hogg, the poet, writing of the flowers which were fashionable in his day says—"In some particular instances I am disposed to copy the Dutchman, and I would have my beds of hyacinths distinct, my tulips distinct, my anemones, my ranunculuses, my pinks, my carnations distinct, and even my beds of hollyhocks, double-blue violets and dwarf larkspurs distinct, to say nothing of hedgerows of different kinds of roses. Independent of the less

trouble you have in cultivating them when kept separate, you have, as I said before, beauty in masses, and you have likewise their fragrance and perfume so concentrated that they are not lost in the air, but powerfully inhaled when you approach them."

e  
lens.

Of all the flowers which repay the provision of a separate garden and individual treatment, the rose by popular consent has first and unquestioned claims to special

## FLOWER GARDENS, BEDS AND BORDERS

consideration and choice of position. No other flower provides such a number of varieties with such a wide range of effects nor such an extensive flowering season. The compact bedding varieties, standard pillars and rampant climbers for training over the high ugly wall, clothing the pergola or draping the summer-house, each have their distinctive habit, so that, in a representative collection, monotony is impossible.

Though such gardens are usually placed near the residence or in direct communication with it, this is not always so. For instance, where a house is built in a position of great natural beauty, it may be desirable to leave the surroundings as far as possible in a state of nature. This is often wisely decided upon, though it needs infinite skill and patience to harmonize the distinctly artificial with the obviously natural. The transition between them is often supplied by means of close-shaven undulating lawns, interspersed with groups of ornamental trees, conifers or rhododendrons. The transition thus attained is not always quite successful, and could have been managed better by gardens, which whilst distinctly geometrical in design, would not be assisted by any architectural accessories. In many such cases the situation will be too barren and bleak for roses, and thus the garden will be placed elsewhere, but, in those cases where they would succeed, no class of flower is so well adapted to producing the right note as the briars and single hybrids, which would harmonize with the natural scenery, while, nearer the house, pillars, arches or festoons of some of the innumerable climbing varieties would provide a suitable setting for the architecture and would enclose the formal garden. Within the garden itself each bed might be filled with its own variety of choice hybrid tea roses, the beds as a whole forming a perfect symphony of soft colouring.

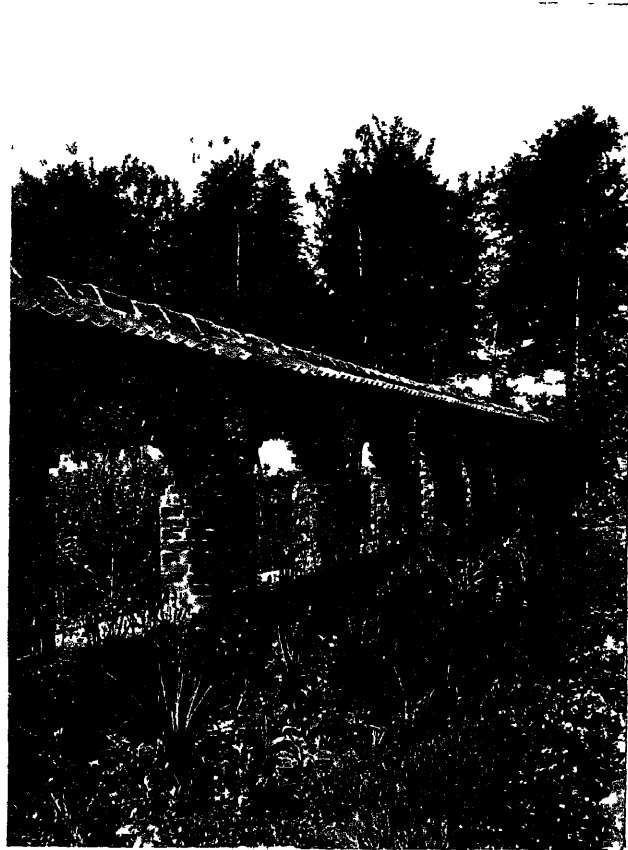


FIG 143—OLD WALL BROKEN THROUGH TO OBTAIN VISTA.

The garden devoted to one class of plant or flower may also be placed away from the house to obtain the necessary soil and aspect. The transition from rock or dry arid tracts to bog, which will be found in many gardens in hilly districts, may make this necessary, and provides unlimited scope for the arrangement of gardens of different sorts, for roses in one part, and rhododendrons or azaleas in another, and so on. These are the opportunities which, if seized and adequately used, secure individual expression to a garden.

*Gardens devoted to one class of plant*

The allotment of several gardens to distinct classes of flowers is a very good and appropriate plan in those English domains which have grown out of farm houses, and where the old picturesque farm buildings and enclosures have been retained and adapted to garden uses. Orchards will remain much as they were, and cattle yards and other enclosures be converted into gardens and green courts, and where this is done with skill and taste, the result compensates for the omission of the terrace scheme, with its variety of levels. The first object should be to give some direct connection between these several gardens, the openings being treated so as to secure long vistas such as that shown in illustrations Nos. 144 and 145. An effective alternative is obtained by piercing the wall between two such gardens with a series of arched openings similar to those shown in illustration No. 143. Whatever other treatment of the old walls

## FLOWER GARDENS, BEDS AND BORDERS.

is undertaken the clothing of them with beautiful climbers, trained to trellis where necessary, should form a definite part of the scheme. The best method of dealing with such gardens is to treat the spaces between the beds as paved walks, edging them with box or stone. Between the various beds forming part of one panel design, they would be kept quite narrow, say two feet to two and a half feet broad, while the paved space round each panel would be broader, say six feet across in ordinary cases.



FIG. 144.—VISTA THROUGH OPENINGS IN YEW HEDGES.

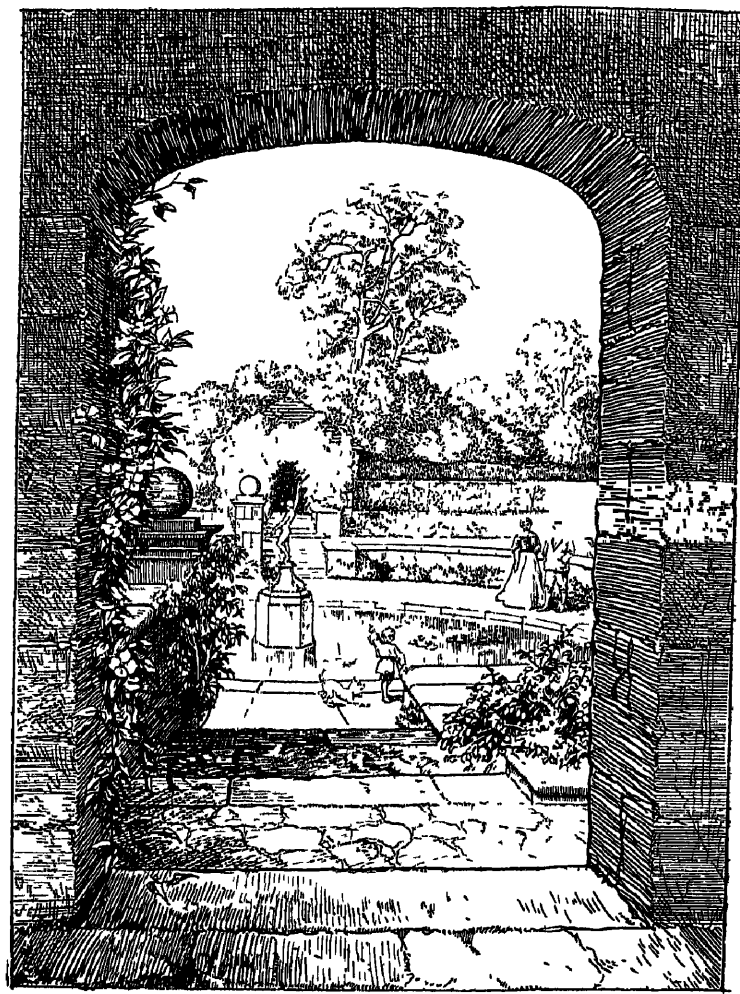


FIG. 145.—VISTA FROM GARDEN HOUSE AT WOOD, DEVON.

Illustration No 147 shews an arrangement which is capable of delightful effects, in which the garden is devoted entirely to roses and carnations, two favourite flowers which harmonize perfectly when skilfully arranged. The design allows the beds to be changed, should this be thought desirable, say, alternate years, in order to obtain some of the benefits of crop rotation. This garden is placed against the walled-in kitchen garden in the pleasure grounds at Madresfield Court, the seat of Earl Beauchamp; it overcomes the difficulty of toning down the aggressive lines of the brick walls which are essential to a large garden where high-class horticulture is pursued.

In this instance the garden is surrounded by high yew hedges, the growth of many years, and trimmed to quaint shapes. The beds are edged with box, and the inter-spaces gravelled; but a design of this kind can often be more economically and effectually treated as an enclosed grass lawn with the beds cut out of the turf.

Gardens are seldom devoted entirely to carnations, but, in favourable districts, a part of the garden might very suitably be given to them. One of the best arrangements of this kind which the writer has seen was a carnation walk, square beds, each accommodating twenty plants, being formed on either side of the walk, with long borders at the back, planted with other flowers, such as violas, pansies, pinks, phloxes and large masses of the stronger-growing border carnations, the whole being arranged as

## FLOWER GARDENS BEDS AND BORDERS.

shown in the sketch (Ill No. 146). This garden is about a hundred yards from the house, and has the advantage of a fine background on either side of native silver birch and Scotch firs

During the later Victorian period gardens were not only devoted to one or two flowers, but also entirely to the cultivation of hard-wooded plants such as ericas, daboceas, alpine rhododendrons, azaleas, kalmias, ledums and andromedas. Some of these gardens are quite formal, others more or less informal, which latter method seems more suited to the character of the plants, which, while allowing of good grouping effects, are more closely related to wild nature than to the highly-dressed parts of the garden. Such arrangements are usually called American gardens, and may often with advantage be laid out near the outskirts of the grounds, or in connection with the pinetum where one exists.

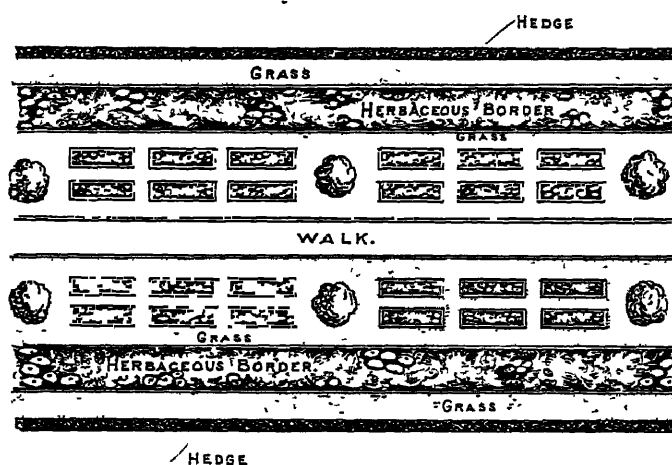


FIG 146 ---A CARNATION WALK

Owing to the long flowering season which is usually attempted in herbaceous borders, there must necessarily be large areas of soil or flowerless plants in every border, re-

*Herbaceous borders*



FIG 147.—THE CARNATION AND ROSE GARDEN, MADRESFIELD COURT.

sulting in a somewhat patchy and unsatisfactory appearance.\* Many devices have

\* Some garden writers suggest that it is possible to maintain herbaceous borders in bloom for ten and eleven months of the year



FIG 148.—GRASS WALK AT LACIES, ABINGDON.



FIG. 149.—IN THE RESERVE GARDEN, FOOTS CRAY PLACE, KENT.



## FLOWER GARDENS, BEDS AND BORDERS.

been resorted to, to obviate this, such as filling in the interspaces with annuals and biennials, and indeed, whatever plan is adopted to overcome this defect later on, some such arrangement as this will be necessary for the first year. The best method of preventing the defect is to plan the borders that they are usually seen lengthwise and not at right angles to the line of sight. The result is that, the perspective being fore-shortened, the occasional large masses of bloom are, so to say, bunched together, the intervening spaces of soil being hidden

The first of two accompanying sketches showing herbaceous borders in front of a

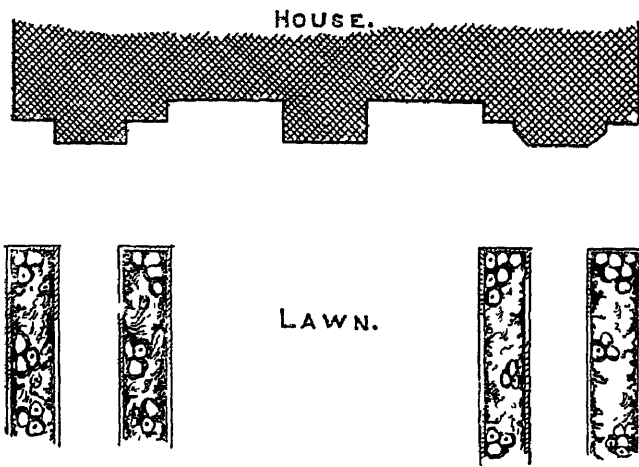


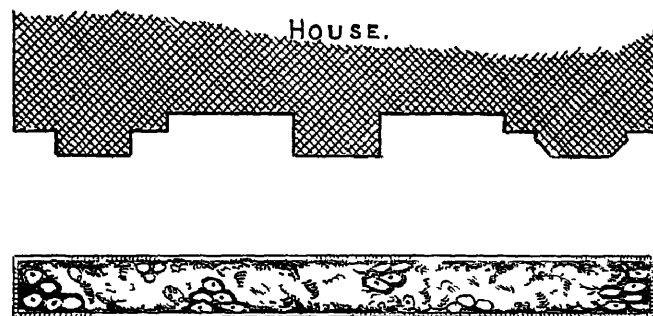
FIG. 150

residence (Ill. No. 150) shows the correct method, the second (Ill. No. 151) shows the wrong way. These remarks do not apply to borders running along the bottom of a terrace wall parallel to the front of the house, as in the third sketch (Ill. No. 152), for, in this case, the border would be hidden from the house, and the principal point of view would be at the foot of the central flight of steps. The two accompanying photographs of such borders (Ill. Nos. 148 and 149) will show what is meant.

*An example.*

To illustrate most of the points dealt with in this chapter, a plan is given of the gardens laid out at Warren House, Hayes, Kent, for Sir Robert Laidlaw (Ill. No. 153). This instance is exceptionally suitable for our purpose, as it was found possible to create a chain of flower gardens extending right round the domain. The site is flat, though surrounded by beautifully undulating country, and, before the recent improvements, was covered with rough coppice wood interspersed with small groups of Scotch fir, which have been incorporated into the scheme.

The residence being of considerable size and no distant views being obtainable from it, it was obviously desirable to form extended vistas within the grounds. How this has been done is indicated by the radiating lines on the plan. This fact, coupled with the consideration that the existing lawns round the house



LAWN  
FIG. 151

were needed for tennis and croquet, and that the interposition of flower beds near the house would prevent a co-ordinated treatment of the lawns and accompanying groups of trees, which together combine to form the vistas, resulted in the beds being laid out in a series of gardens on the outer fringe of the property. In addition to the new gardens shown on the plan, a rock garden and dell had already been formed on the west side of the site, and eventually it is hoped to complete this side by the addition of a water

garden. On the east front, too, there was already a well-planned and furnished rose garden designed by the late Mr. George Devey, enclosed on its east and south sides by beautiful yew hedges, and, on the north, by a brick wall.

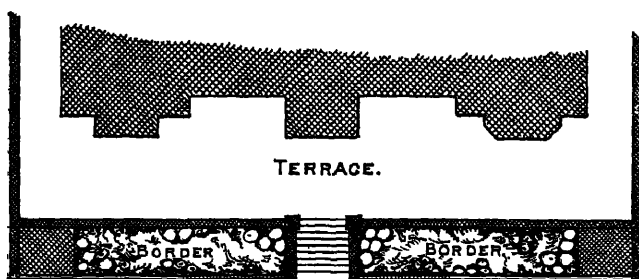


FIG. 152

out with corresponding numbers on the plan. Starting from the east end of the main terrace (1), we have first a new sunk garden (2), this is enclosed at the end with an





## FLOWER GARDENS, BEDS AND BORDERS.

oak trellis screen for climbing roses and clematis, and has beds for roses and carnations cut out of the grass. On a higher level on either side, (3), there are long beds of roses punctuated by standard Dorothy Perkins rose trees trained as balloons, the arches which cross the path being planted with choice clematis. This part of the garden is enclosed on either side by yew hedges. At the far end of this a curved walk commences which passes right round the estate, connecting the whole chain of gardens. On either side of this walk are pillar roses (4) trained to scaffolding poles nine feet high, and between these are planted miscellaneous roses and briars to form a tangle. The part numbered (5) is arranged as a panel garden, in the centre of which is a small lead figure of Cupid, while in the centre of each bed is a specially designed pillar, the line of the latter being continued through the adjoining garden. Over these are to be

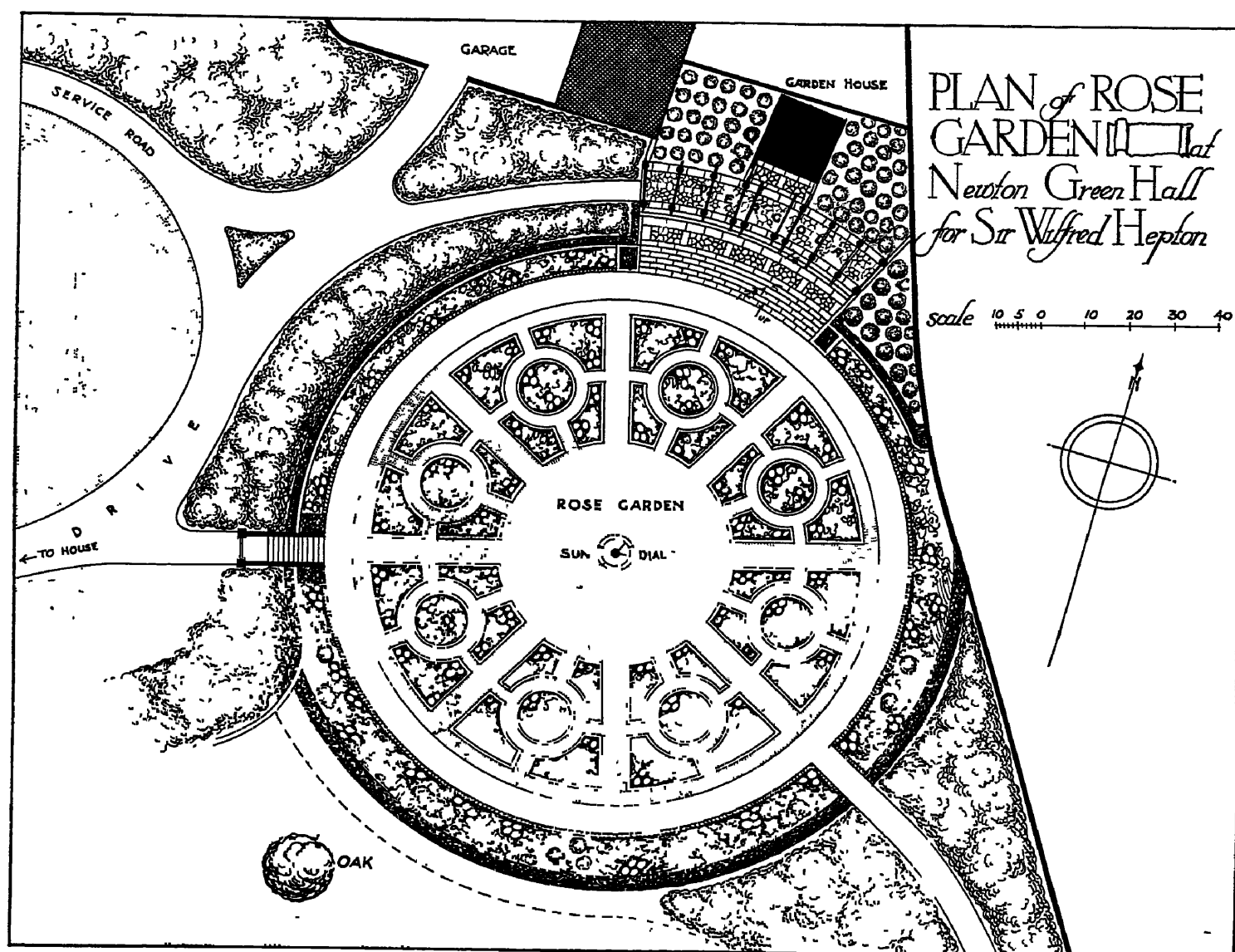


FIG 154

trained climbing roses, while the beds are to contain lavender and China roses. The garden marked (6) is to be devoted entirely to sweet-smelling flowers, among which stocks and carnations will be prominent. On either side of the steps (7) are planted groups of azalias, andromedas, kalmias and other peat-loving plants, and on either side of the curved walk are planted limes, which are to be pleached into a continuous canopy overarchng the walk, the under side of the pleach being about eight feet high to admit open views on to the lawns. At the point marked (8) are large masses of choice rhododendrons, with irregular margins of ericas, ledums, and Ghent azalias of delicate colours, to harmonize with the rhododendrons. At (9) are herbaceous borders enclosed with yew hedges. In the centre of the circular end it is proposed to place a figure representing Spring, surrounded by beds, which are to be filled with spring

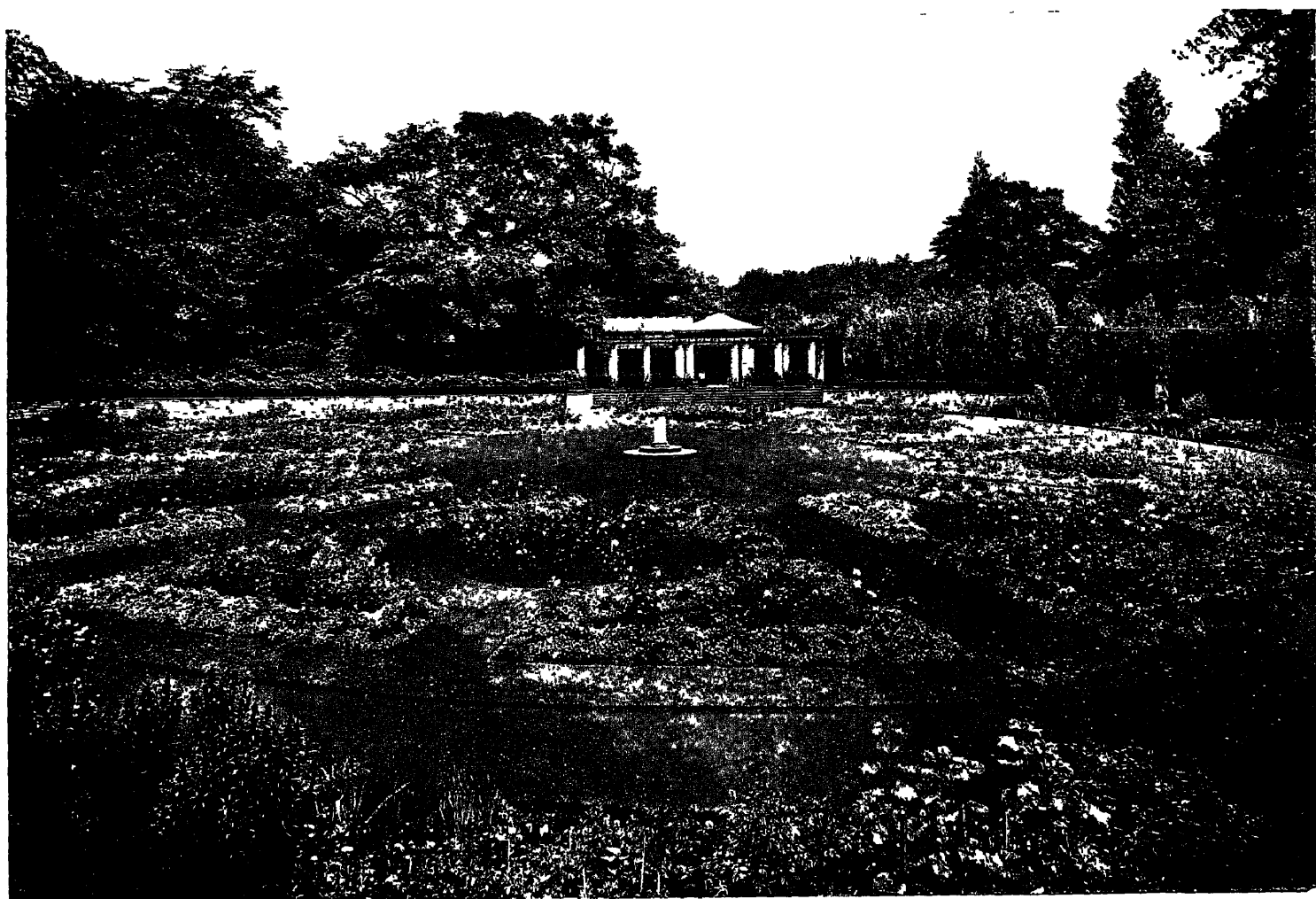


FIG. 155 —ROSE GARDEN, NEWTON GREEN HALL, LEEDS

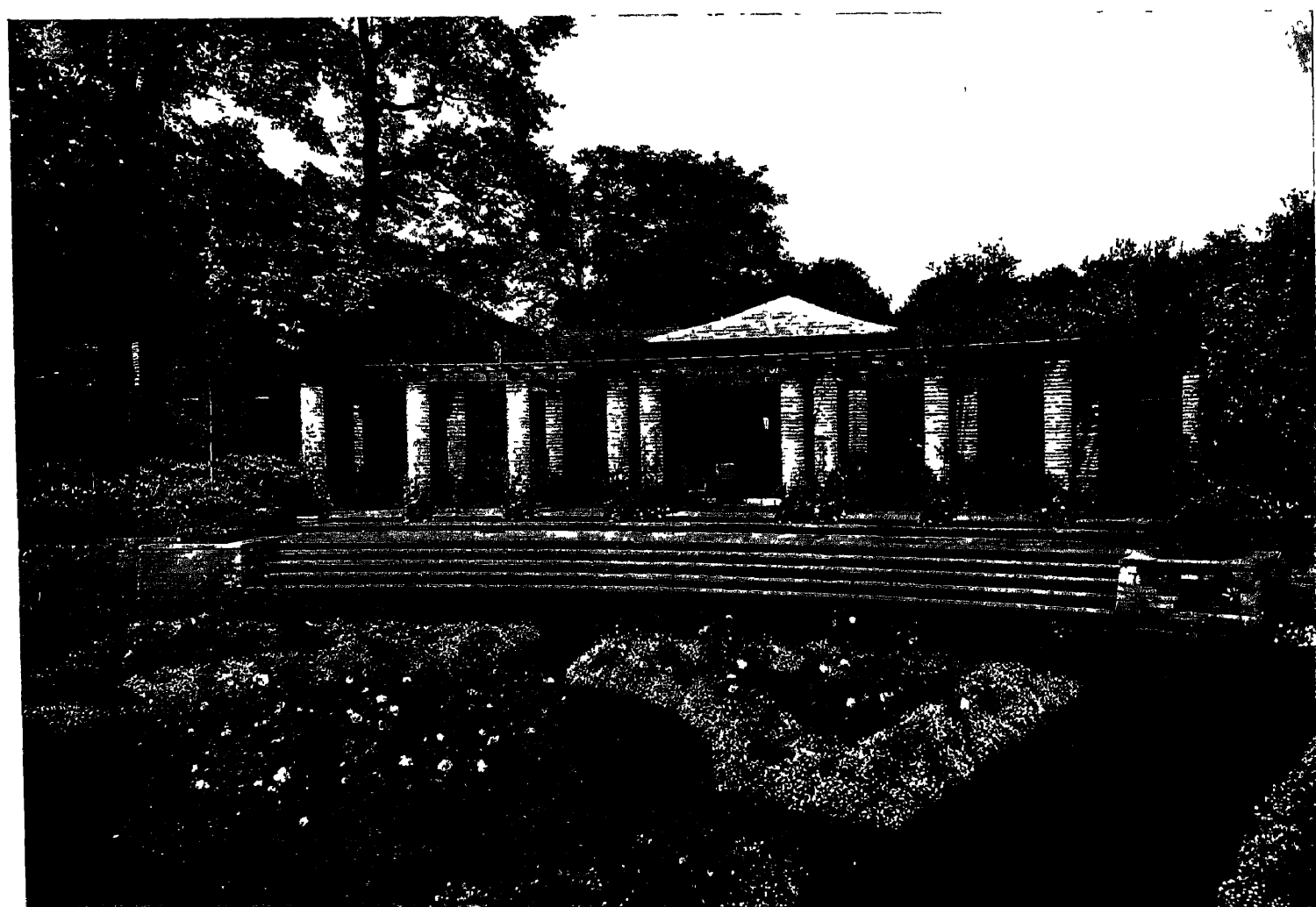


FIG. 156.—SUMMER-HOUSE AND PERGOLA IN ROSE GARDEN, NEWTON GREEN HALL.

## FLOWER GARDENS, BEDS AND BORDERS.

flowers, the long borders, on the other hand, being arranged for late spring, summer, and autumn effects. Against the existing mass of rhododendrons (10) is to be placed a figure of Autumn, which will form a fitting termination to the paved walk. The beds at the junction of several walks at the point marked (11) are filled with azalias, kalmias, andromedas, and autumn-flowering ericas. Thus is obtained a girdle of interesting gardens round the grounds, each part of which, while combining to form a delightful whole, has its own interest and individuality, so providing variety, and whatever be the season, from early spring to late autumn, some part or other which is specially rich in colour.

The plan of a rose garden (Illustration No 154), and the views of same (Ill Nos. 155 and 156), provides an example of quite a different kind. Instead of being part

*Plan of a  
rose garden*



FIG 157.—SUNDIAL AT WALMER PLACE, KENT.

of a connected scheme like the last example, it is treated as a complete unit in itself. As will be seen from the plan, it, together with its pergola, garden-house and surrounding plantations, has been adapted to the irregular shape of its own plot of ground, and which falls considerably to the south. It is approached from the stable drive on the one side, and, on the other, through an old shrubbery walk and wild garden. The design is dominated by the rose-covered pergola, which is taken as the central feature up to which everything must lead. The beds are cut out of the grass, and filled with roses, only one variety being planted in each, the whole arranged with regard to colour, character of foliage, growth, and degree of hardihood.

In closing this chapter reference is made to a matter which belongs as much to the next chapter as it does to this. This is the most mistaken but very prevalent practice of breaking up every expanse of lawn with flower beds, and so destroying the continuity of line and flowing curves, which are the chief attractions of a sweep of



FIG. 158.—BORDERS AT BRACONDALE.



FIG. 159.—BORDERS AT BRACEBRIDGE COURT, LINCOLN, FOR A. R. NEWSUM, ESQ

## FLOWER GARDENS, BEDS AND BORDERS.

greensward. A clear expanse of shaven lawn seldom has a bare effect, and it is not essential, in every case, to enliven it. Elsewhere we have endeavoured to show that lawns should be treated as desirable in themselves and not merely as backgrounds, though of course, this must be taken with limitations as they may be either, according to circumstances.

Plan Illustration No 160, which shows the large Rose and Lavender garden in the new Central Park, Blackpool, is an exception to this general rule. This garden is a depression formed by the previous excavation of clay for brickworks now removed. Owing to its sunken character, it is screened from the surrounding lawns and is only to be seen when close upon it, so that really it does not interrupt the continuity of the lawns and glades surrounding

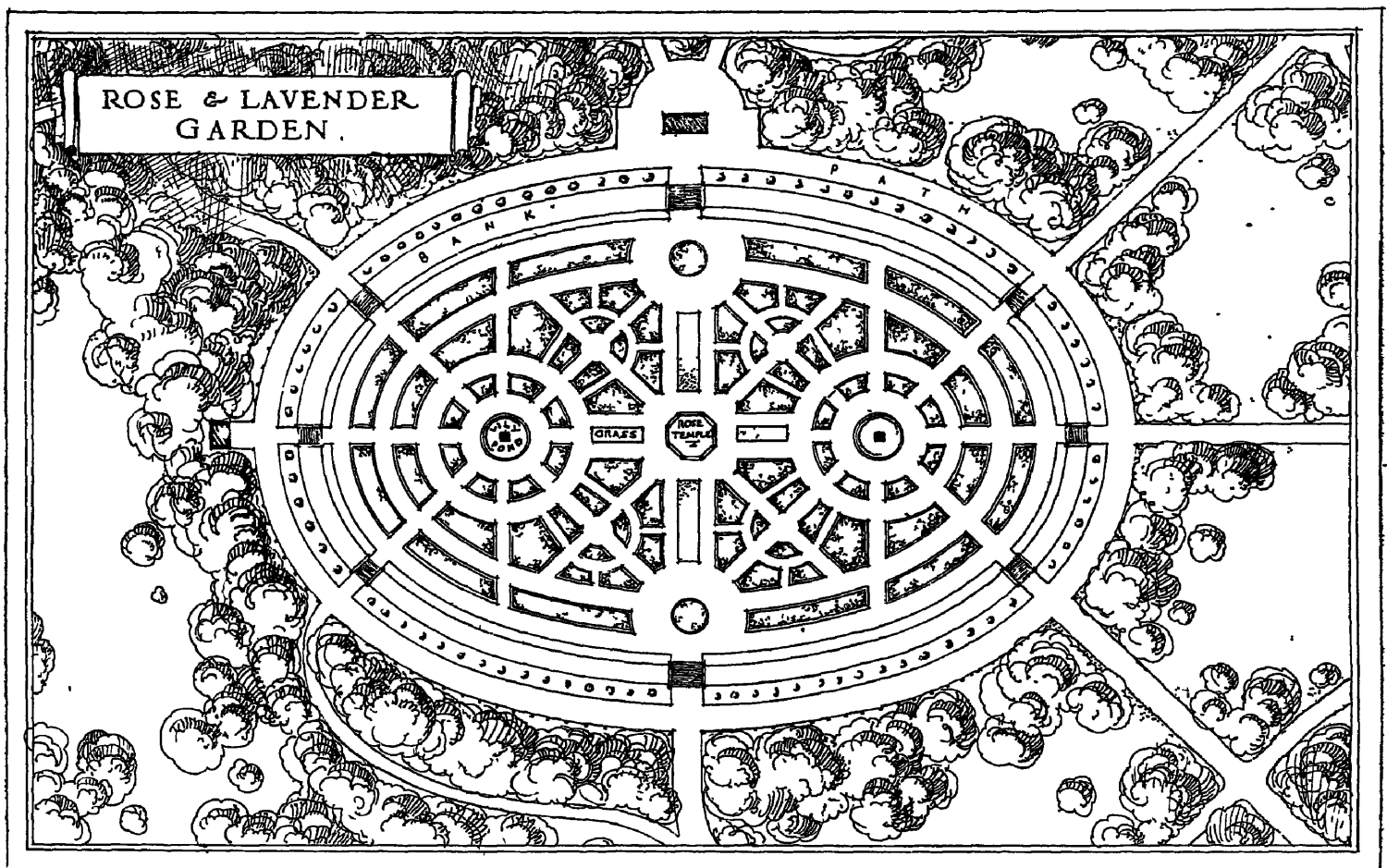


FIG. 160.—ROSE AND LAVENDER GARDEN, BLACKPOOL PARK, LENGTH 340 FT, WIDTH 240 FT.

Flowers in borders should be considered not alone for their colour in the arrangement, but for their tone or their relative amount of white or dark into which their colours resolve themselves. This is as important or more so than their colour. White, light yellow flowers, pale pink, or pale blues that are light in tone, are as needful as the bright reds, brilliant blues and vivid orange hues, in all cases the gradations or contrasts must be arranged and massed according to both tone and colour. They should offer to the eye one clear picture, or a series of pictures in one at one time, and should purposely express distinct intentions. Herbaceous borders often lack the sense of boldness, even when there is an abundance of well grown individual and typical plants. Massing ought to be the rule and expanses of one species of flower, because each kind of flower possesses its own unique harmonious range of colour; this favours boldness in the arrangement of the herbaceous borders where it is easy to move plants from one part to another. Here is the difference between the herbaceous and shrub border. The latter once planted allows of no removals, but the herbaceous border does allow of adjustments provided they are not so numerous as to upset the general ensemble.



## FLOWER GARDENS, BEDS AND BORDERS.

Judged from the standpoint of harmonious colour schemes, generally speaking the pre-arranged border does not impress, rather it serves to point the moral of Ruskin's axiom that "nothing great is ever effected by management." This must not be construed to mean that it is to be haphazard and no pre-arrangement. Cottage gardens may be taken as our exemplars, their glory being that they rely chiefly upon a few well placed plants which have grown into their place for a generation or more and the place has grown to them. Changes and importations are rare; if suitable they flourish, and if unsuitable they die and are replaced until such suitable successors are installed that need no coddling nor tying up, nor special composts. They bespeak that sense of "let well alone," which is not often evident in spruced up-to-date gardens. It is just this sense of easy nonchalance which is lacking in the strained and hybrid arrangements of harmoniously arranged colour borders.



ENGLISH VILLAGE AND LANDSCAPE.





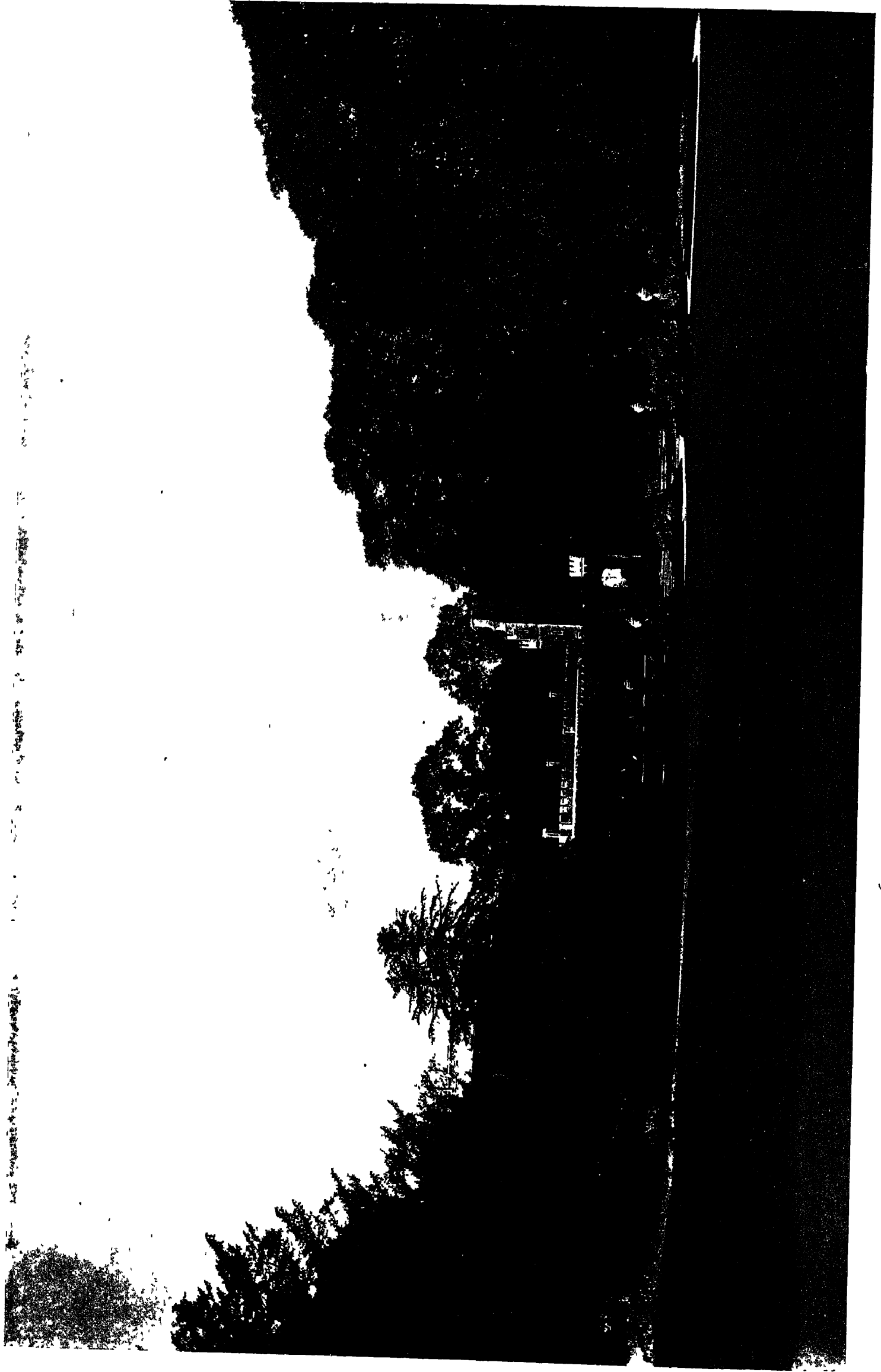
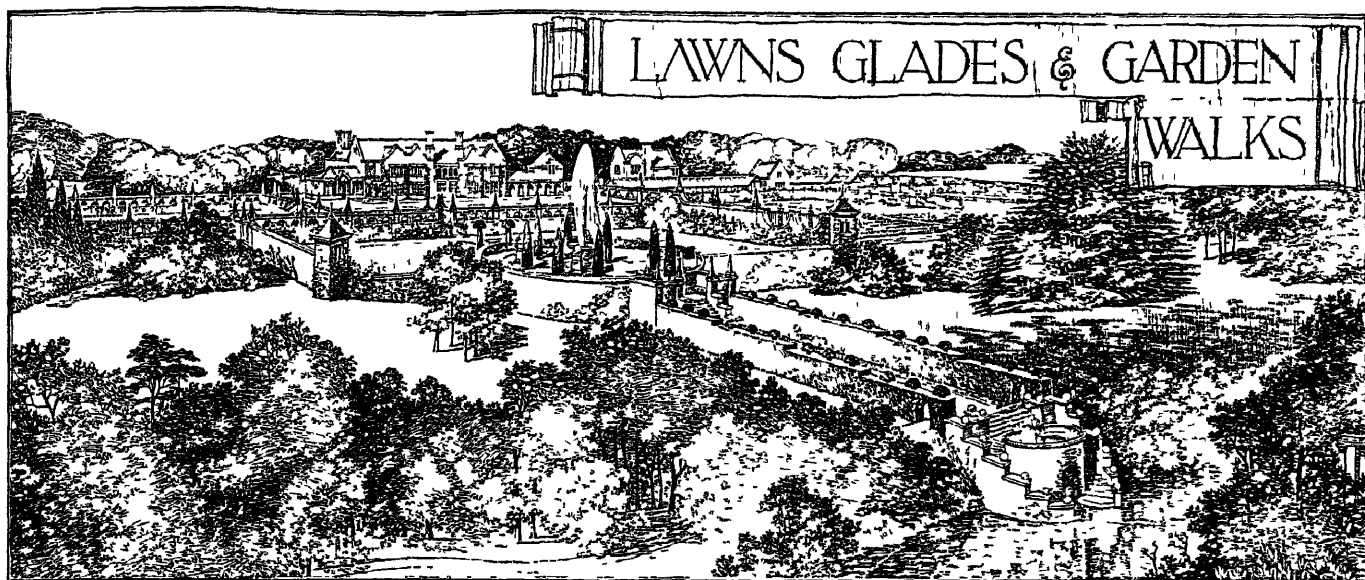


FIG. 161 —LAWNS AT ASHRIDGE PARK, BERKHAMSTEAD.



## CHAPTER IX

How slow we are to learn the lessons of breadth and repose which Nature is so ready to teach us! Swayed this way and that by fashion, we first embellish every square foot within and about our homes, then change and go to the other extreme, and insipid flatness results. Nature's book, free to all who will cast away the shibboleths of convention and read with an open mind, tells us that striking and vivid contrasts occur seldom, and where employed, should be to pronounce the orderly restfulness of the scenes they enhance. The contrasts presented by the lordly and rugged oak rising from the smooth meadow with its gently swelling contours, the towering poplar breaking across the level lines of the blue horizon, and the graceful foliage and white trunk of the silver birch springing from the face of the rugged precipice, prove the universality of Nature's methods whether in rural pasture, fenlands or rugged mountain scenery. She has, in the foliage of woods and forests, vast stretches of beauty, restful to the eye yet on examination full of charming detail, or broken masses arranged on rolling grassland in effective groupings, the verdant grass forming a restful plane upon which are projected the shadows of the trees in all their varying qualities. Thus, by open stretches of grass, a restful effect is obtained, relieving the eye of too much detail, emphasizing the beauty of form and colour in trees, shrubs and flowers, and forming green glades to carry the eye forward into mellow distances.

In no part of garden design and construction can we learn more from Nature and her methods in the arrangement of pastoral scenery than in the disposal of lawns and green glades. Every bit of rolling pasture is potentially a lawn, and the most distinctive feature of our home landscapes.

Travellers tell us with what pride people of other lands, even in classic Italy, point to their English gardens, which can only be so to a limited extent, because the chief feature, the green lawn is either lacking or is maintained artificially at great expense as an exotic. Undoubtedly the fresh greensward which our humid climate makes possible and natural to our gardens is their greatest and most distinctive asset, and, did we but realize this, we should cease to regard grass merely as a background or foundation for other things, and treat it as a feature in itself. We should cease to break up our lawns by dotting them all over with small exotics, and instead, enframe it with suitable masses or groups of foliage. Just as strains of music, heard across a stretch of open water, are blended and harmonized, so is detail when viewed across an open stretch of greensward, and detached groups of trees blend into a harmonious whole.

In no case is the value of plain green turf so evident as in connection with large public or historic buildings. The green, open expanse of the cathedral close, which is

*Green lawns distinctive features of English gardens.*



FIG. 162.—THE BOWLING GREEN, LEVENS HALL.

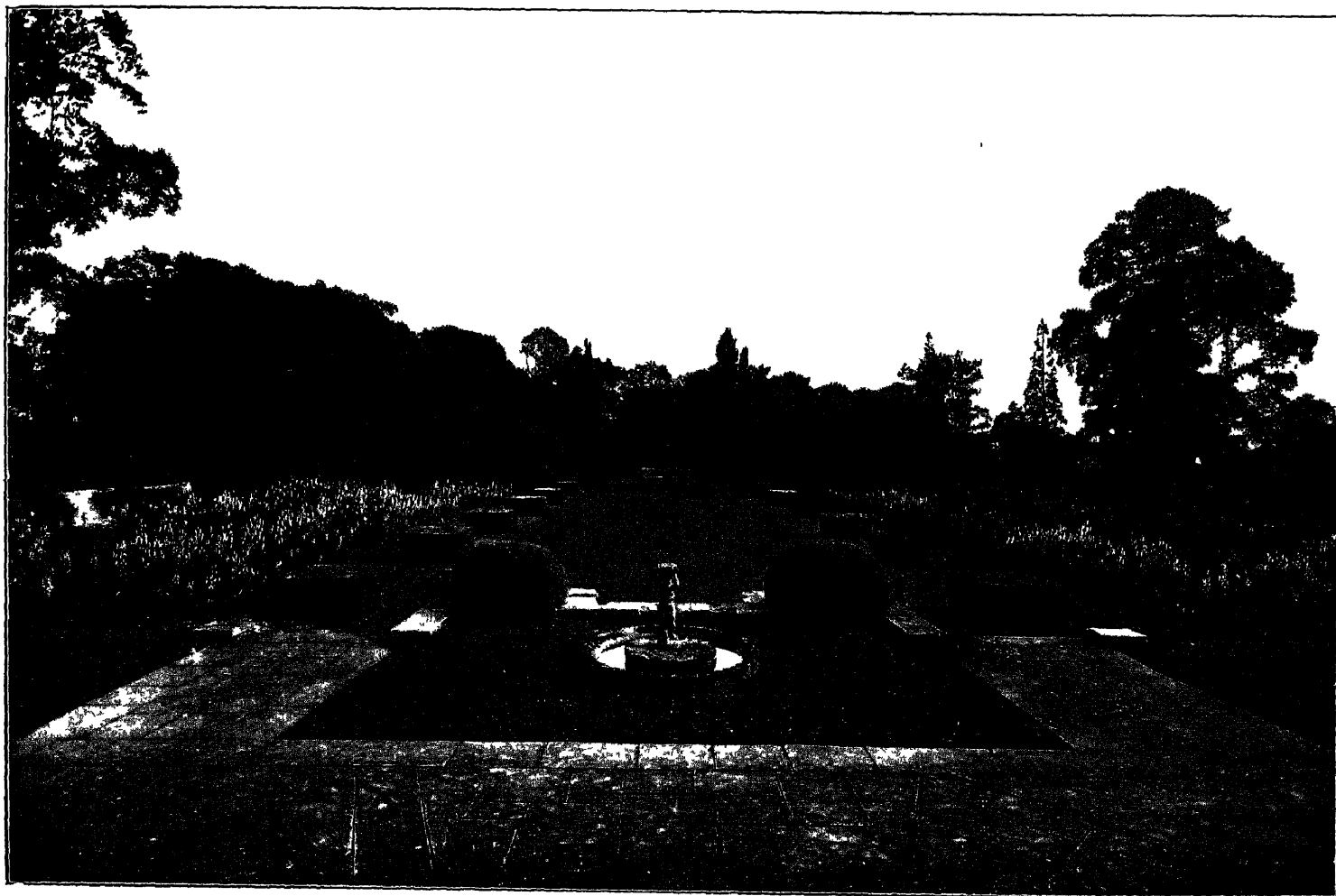


FIG 163.—GRASS GLADE AT HARTPURY HOUSE, GLOUCESTER, FOR MRS GORDON CANNING

## LAWNS, GLADES AND GARDEN WALKS.

so essentially English, teaches us many lessons, especially if we compare it with those instances where, under the mistaken idea of additional adornment, it has been broken up and dotted over with shrubs. The effect of this treatment is in every case disastrous, for, whereas formerly we had the level expanse of green complementary to and emphasizing the vertical lines of the Gothic architecture, we now have an area confessedly designed to attract admiration for its own sake and consequently feeble in competition with the architecture.

We have, in most gardens of moderate extent, two distinct classes of lawn, the formal and the informal. The first of these includes those recreation grounds essential to a modern garden, the tennis and croquet lawns, bowling greens, and possibly a formal archery or open-air Badminton court, and those level lawns or formal banks which, together with the steps, walls, and clipped hedges, form the architectural setting of the house. The second is comprised of the outer fringe of grass running off on all sides into undulating lawns, broad grass glades or vistas which unite the formal gardens, by easy gradation, with the landscape beyond.

*Formal and  
informal  
lawns*

In the architectural garden, the shapes of the lawns on the terraces and the proportion they bear to the whole area of each plateau are all predetermined with almost mathematical exactness, the strips and squares of grass being allotted with due proportion to the spaces and terraces of which they form a part, and the tennis and other lawns for games in strict conformity with regulation dimensions.

The making of formal lawns has been already more than incidentally mentioned in speaking of terraces and terrace gardens, and the remarks then made with regard to obtaining the correct levels for terrace gardens apply equally to the levelling of other areas for games. Lawns for single tennis courts should, where possible, have a total length and width approximating one hundred and twenty feet by sixty. Where space is restricted, a lawn of one hundred feet by fifty is permissible. For afternoon play the lawn should preferably be so placed that the net runs from north-east to south-west; for play earlier in the day it should stretch from north-west to south-east, thus ensuring that neither side shall have the sun directly in their eyes. A most useful size is one hundred and twenty feet square, which allows of two courts side by side with the nets placed either way according to the times of the day they are required.

*Tennis  
lawns.*

Owing to the perennial popularity of tennis, gravelled or concrete courts are in demand to allow the game to be played during the winter months.

To lay an expanse of concrete untriedly, without cracks, with a gentle slope, is the work of specialists who thoroughly understand the peculiarities and limitations of their material. This advice is given after having had woeful experience of the amateur concreter, and knowing by contrast the work of the experts. In any case the concrete must be tinted to obviate glare; Concrete courts require much more run back than grass courts. Twenty feet at either end is not too much. Asphalt courts, as all tar preparations, are apt to be sticky in summer and their colour is repellent. Gravel courts are commendable.

For a gravel court the soil and subsoil must be reckoned with. If of clayey material it must be dug out to a depth of ten inches at least, and the under surface graded to throw off the water, and agricultural pipes placed thereon leading to a ditch or sump hole. Where the subsoil is sand or gravel it is only necessary to take off the top spit of vegetable soil. For formation, materials indigenous to the neighbourhood are cheapest. The bottom layer may be of gas clinker, or broken brick or stones six inches thick rolled with a heavy roller to four inches. The second layer may be of chippings, or burnt clay ballast or brick chippings rolled down with a heavy roller, water being freely used to consolidate the mass. Finally as top coat two inches of sifted gravel rolled down to the thickness of one inch, water being freely used in the process. You can never

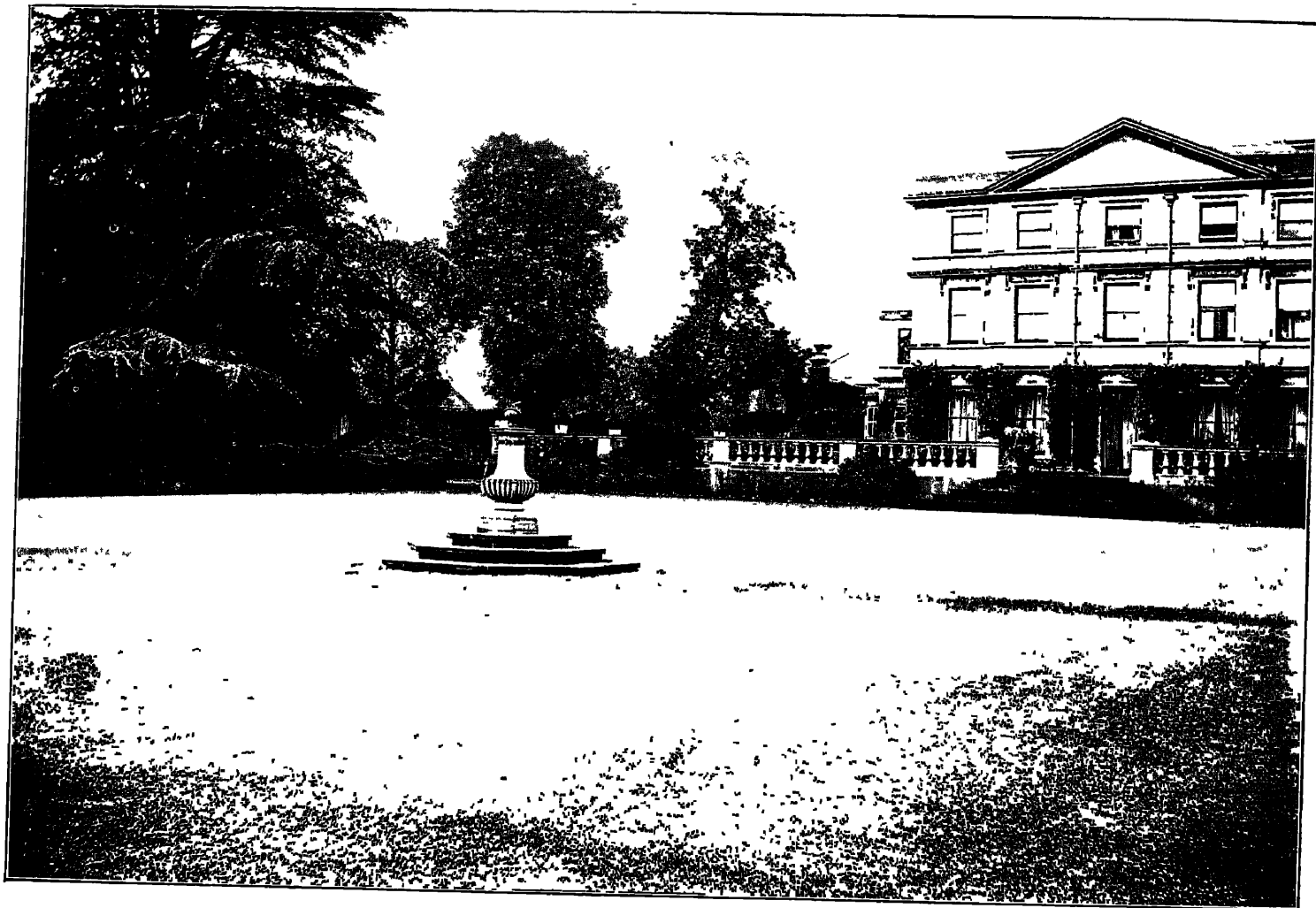


FIG. 164 —TERRACE AND SOUTH LAWN, WOOLLEY HALL,

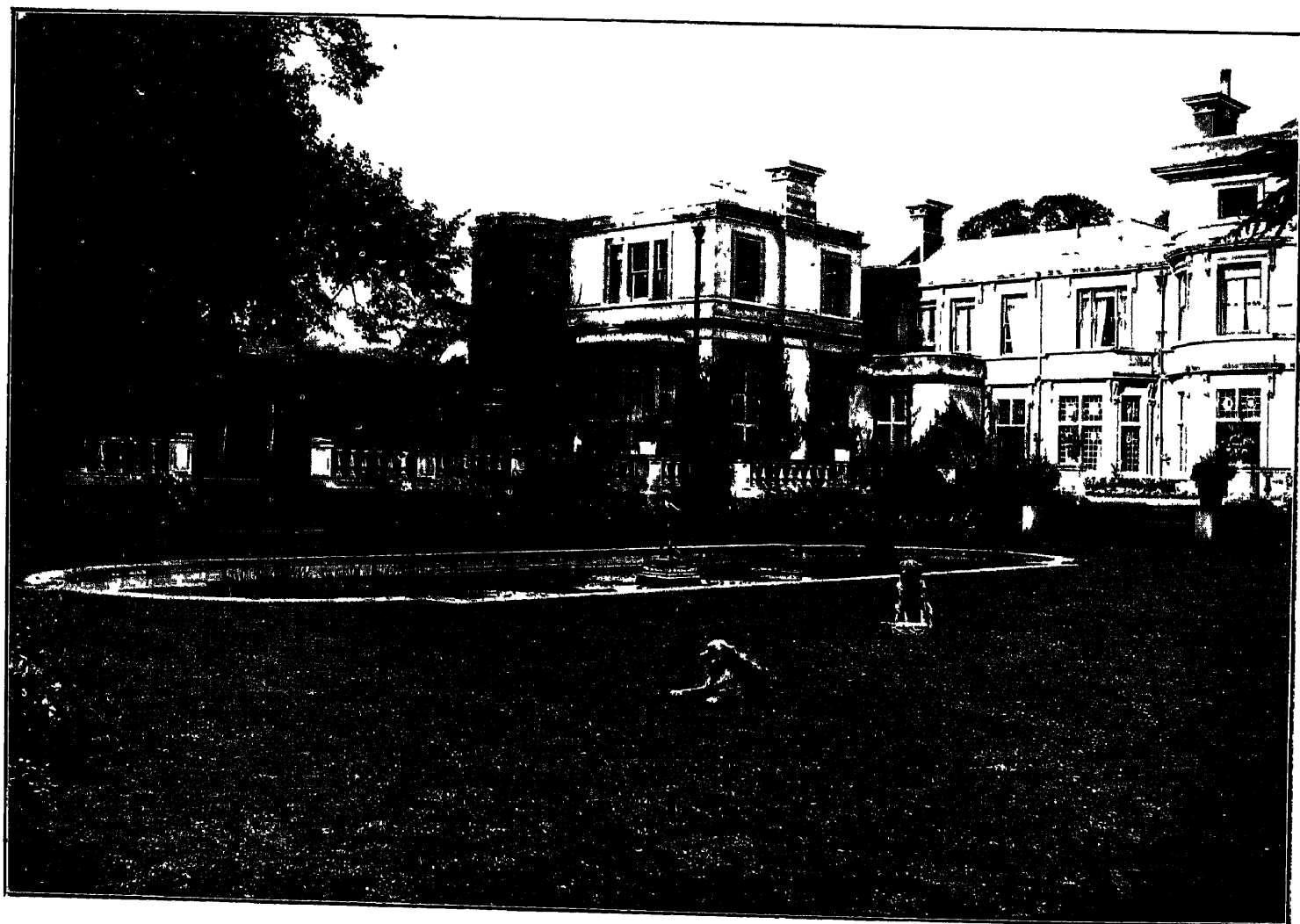


FIG. 165.—WEST LAWN AND LILY POND, WOOLLEY HALL.

overdo the rolling, in making or maintenance. The most approved materials for the formation of hard tennis courts are crushed brick of hard quality; red Derbyshire gravel which has a more pleasing red than the former; crushed slag; and crushed green Westmorland slate. The latter is the most agreeable of all, both in colour and texture, and the most popular with the players who have had experience of the various materials. Crushed slag is also much in favour. The laying of hard courts is better entrusted to experts. The sockets to take the net posts must be of concrete.

The tournament sizes for different games is given by plans on page 140, but excellent games can be played on lawns much smaller than standard sizes.

Croquet is a game much in favour because of its adaptability to lawns of various sizes

*Croquet lawns.*

Another lawn game which fittingly forms part of the formal garden, and which is increasing in popularity, is the bowling green and bowling alley. The old examples,

*Bowling greens.*

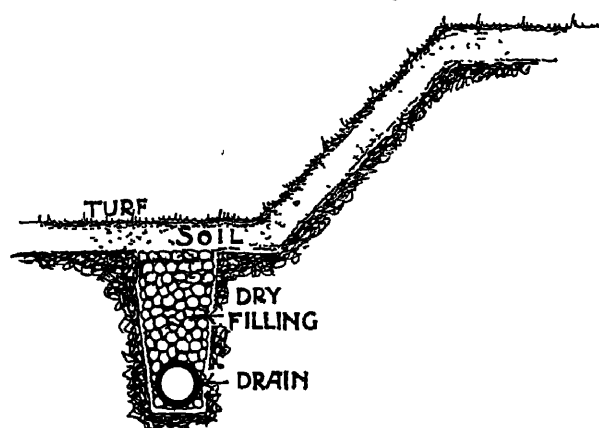


FIG. 166

which appeal to the sentiments of those who love ancient gardens (Ill. No. 162), were generally long and narrow and protected on either side by a stout hedge or wall; others are circular, or oblong with semi-circular ends, with niched seats and sometimes adorned by lead figures. The main features of this class of bowling alley have been reproduced at Foots Cray Place, shown in Ill. Nos. 167 and 168. The popular green to-day is a square about forty yards long and broad, sunk one foot below the surrounding ground, the play-

ing green having a rise of about six inches from the sides to the centre. The raised platform which surrounds the lawn forms a vantage ground from which to watch the game.

This platform should be screened by a hedge or plantation, and if in the hedge recesses are cut for seats, and an arch of greenery is formed over the entrance, the effect will be considerably heightened. Old walled-in gardens which are no longer required for vegetable or fruit growing, make charming bowling greens, having a quaint old-world air otherwise unattainable; furthermore if, as in one instance in the writer's experience, there is a solid flag-roofed, and moss-grown fruit room, this may provide a cool and shady tea-house with little internal alteration.

The formation of lawns for games of any kind where the turf must necessarily be much trampled demands careful drainage. It is impossible to lay down rules as to the number or distance apart of the rows of pipes, some soils being so light as to require no artificial draining and others low-lying and waterlogged are most difficult to drain by any means.

*Drainage of grass banks.*

There is, however, one part of nearly every lawn which will need extra care to keep it from becoming waterlogged, and that is where it has been excavated out of the hillside, and consequently a bank or retaining wall has to be made, connecting the old level with the new. The old level being the higher, water will always tend to drain away from it to the lower, and so the part of the lawn at the foot of the bank or wall will, unless measures are taken to prevent it, become and remain waterlogged. To prevent this a trench must be dug along the foot of the bank, as shown in the accompanying section (Ill. No. 166), and a pipe drain laid in the bottom. Over the pipe pile dry loose stones, to within a foot of the surface, allowing the water to percolate, then replace the soil and turf.

Where the subsoil is formed of some material such as dry flints or gravel, which allows all moisture to drain away so fast that the grass burns in hot weather and all composts or fertilizers are washed away by heavy rain, an opposite case is presented.

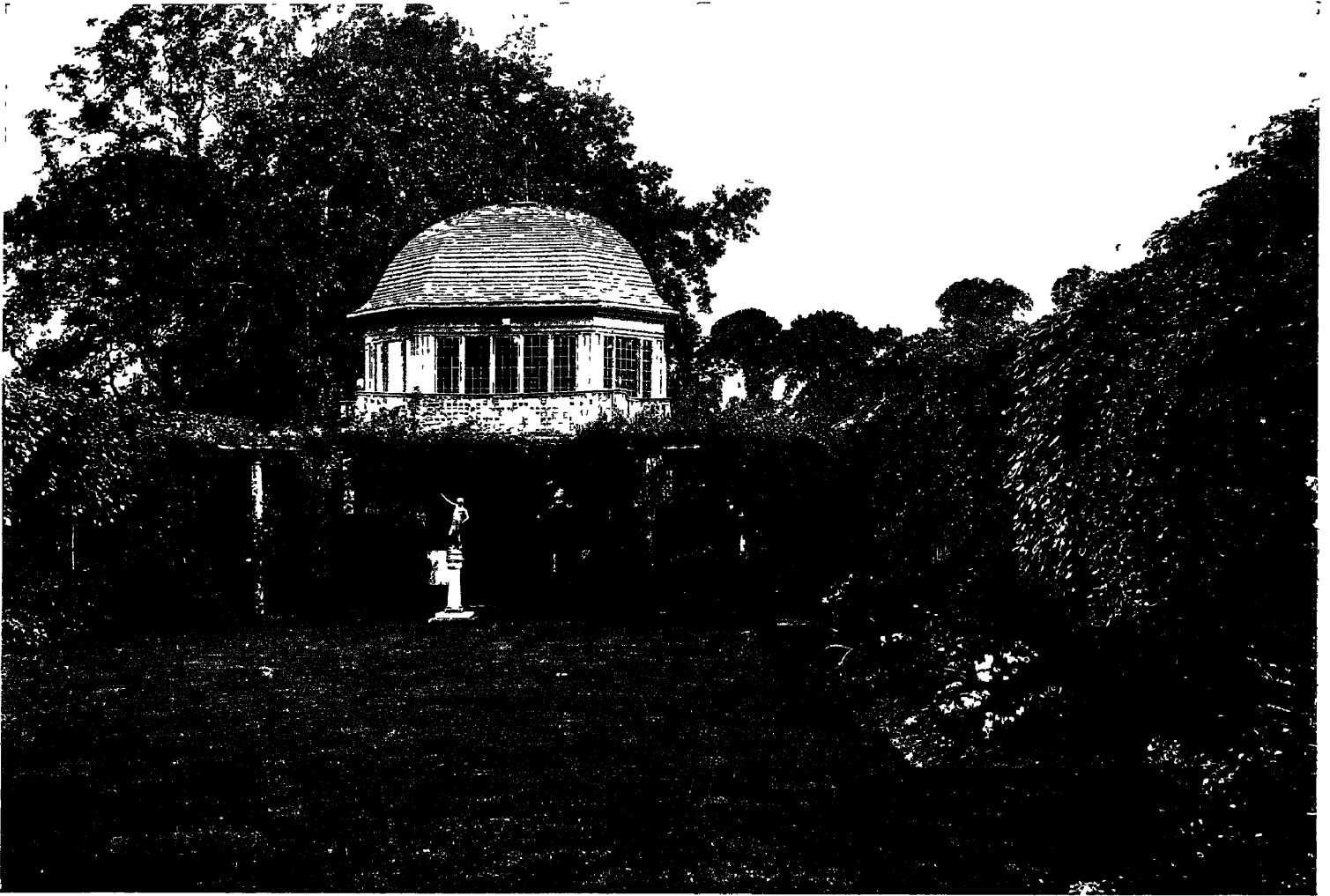


FIG. 167 —THE BOWLING GREEN, FOOTS CRAY PLACE.



FIG. 168 —THE BOWLING GREEN, FOOTS CRAY PLACE.

## LAWNS, GLADES AND GARDEN WALKS.

Here the best way is to sink the lawn as suggested above for bowling greens and to treat the soil with heavy manures and a certain proportion of clay.

Suggestions for the arrangement and design of one or more games-lawns may be culled from almost all the plans of gardens illustrated in this work. In illustration No. 494 is shown a combination which is rather unusual though most convenient. It includes a tennis lawn, a hundred and twenty feet square, a bowling alley and a cedar avenue on rising ground with a resthouse at the top of the glade. This glade is long enough and wide enough to be used as an archery ground, and, at the end, but centering with the bowling alley, is a croquet lawn with a loggia and raised terrace. As before stated, the advantage of such a tennis lawn is that it allows of two courts, which can be placed either way, according to the time of day they are to be used.

Turning now to the consideration of informal lawns, we find that, while they are not susceptible to definite rules for general application, there are certain main principles which must be observed in their formation, and there are pitfalls to be avoided

*Informal lawns.*

The most common error is to falsify the natural contours by the creation of artificial undulations, a process which has already been condemned. Instead, the natural contours of the land must be incorporated into the scheme, and in those districts where the whole of the surroundings of the mansion are at one dead level, the attempt to reform the surface into flowing lines must inevitably result in such a contrast with the remainder of the prospect outside the domain, as at once to suggest its artificiality to the least observant beholder. Far better let it be confessedly artificial and arranged formally throughout.

In practice, there are occasions where gradients which form no part of the natural undulations of the site are necessary. To obtain an easy walk, it may be advisable to excavate below or fill above the surrounding natural levels. It is always well to bear in mind that gardens in any style are simply landscape adapted to man's use, and that the gentle undulating lines of nature are the ideal, not the rough broken ground of the upland pasture, nor, on the other hand, the series of miniature railway embankments so often crowded into a garden scheme.

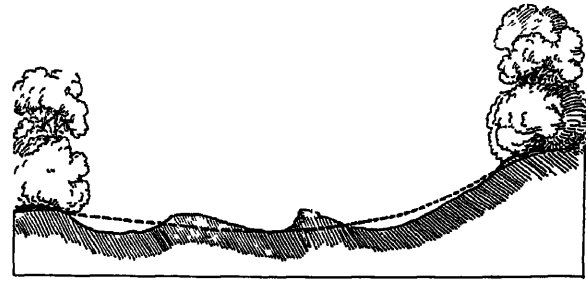


FIG 169

In those exceptional cases where interference with the natural levels of an informal lawn is justified, what are therefore needed are soft flowing lines which grace the original contours and which shall give a sense of rest and refinement. This cannot be attained by the promiscuously bumpy hillocks which so many garden makers affect, but rather by the removal of those subsidiary undulations which are inimical to long sweet stretches of green lawn. The accompanying section (Ill. No. 169) through a shallow valley along which it is proposed to form a vista will explain this. The numerous small hummocks with which the rising ground on either side is studded are removed and the surface left generally according to the dotted line

*Interference with natural levels on informal lawns.*

Where the mansion is designed in keeping with its surroundings and rightly placed on the site, interference with existing levels in the natural portions of the grounds is rarely called for. There are cases where it is advisable to erect a screen between the gardens and undesirable property adjoining, or for the purpose of securing privacy from public thoroughfares. In such instances mounds judiciously planted will speedily secure the best of all protections, but here again breadth of treatment is desirable, for if the mound merely forms a ridge along the boundary, its use is so apparent as to call attention to what it is intended to hide.

There is one form of lawn directly suggested by clearings or "rides" in game woods



## LAWNS, GLADES AND GARDEN WALKS.

### *Woodland glades.*

and vistas cut through forest, which are of never failing interest to the artistic mind. This is the woodland glade or green drive, which is often, as in the accompanying photographs and plan (Ill. Nos. 170, 171 and 172), cut through coppice wood. Coppice woods were originally planted because the land was either too rough or too hilly for arable purposes and not rich enough for permanent pasture. Such land has attractions for lovers of rural country who are seeking a site for a new residence. Incidentally this is fortunate for it leaves the broad pastures and meadows for the farmer.



FIG 170.—THE GLADE, LEWISTON MANOR.  
(See also Ill Nos 1 and 202).



FIG 171 — GLADE CUT THROUGH COPPICE WOOD,  
FOOTS CRAY PLACE.

In treating rugged sites it is well to remember at the outset that the wildness which is at first attractive is not fully satisfactory for the purposes of a residence, at least for the grounds nearest the house, where a certain order and primness is desirable. There is also the further consideration, that the coppice, which looks so well when maturing for its periodical cutting, is bare scraggy timber when cut, so that permanent standard trees of oak or other homely varieties should be encouraged to ensure a permanent woodland; and glades should be planned to bear a proper relation to those trees, so that the effect of avenues may be obtained. Where possible, any opening made in the woodland, whether arranged as a formal or informal glade, should be considered first in relation to points of view from the residence or important parts of the immediate surroundings, and also in relation to views outside the estate boundary.

Two practical considerations must affect the formation of woodland glades. These are the shade and drip from trees, which tend to keep the ground sloppy and to encourage the growth of moss instead of grass. To remedy this, land drains should be laid on either side of the glade at a greater depth than usual, say about four feet, in order to lessen the risk of the tree roots entering them, and in addition to this, the

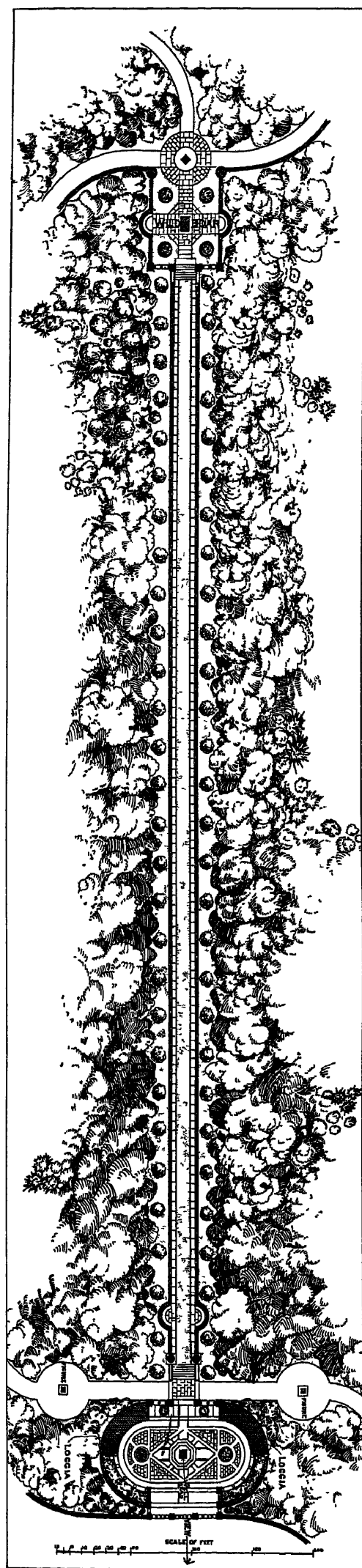
grass should be raised in the centre, or on a hillside, sloped slightly from one side of the glade to the other, to throw heavy rain in the direction of the drains.

Soil in coppice woods, though excellent for the growth of shrubs and trees, is seldom rich enough for grass, so that if manure cannot be obtained, a liberal supply of leaf mould gathered from the surrounding woodland should be added as a top dressing or forked in. If the soil is very light, give a thorough rolling and sow with clover; if heavy, allow it to consolidate naturally and sow with grass seed as given below.

Other things may take the place of grass in a glade. Ivy is often used, or the St. John's Wort (*Hypericum calycinum*), which is so extensively used at Normanhurst near Hastings, and does not look in the slightest degree exotic, as one would suppose among English timber trees. Where a still freer treatment is required, there can be nothing more suitable than bracken, which in summer is susceptible to the play of light and shade, and gorgeous in autumn and a russet brown carpet in winter. Especially beautiful is the brake in winter if interspersed with holly undergrowths; the colour contrast of dark green and russet is a perfect harmony and comes at the time of year when most valuable. Any of these subjects will make a suitable edging for the glade where box is not used. They would be kept to a straight line at either side of the grass and allowed to sow themselves back into the woods as far as they will. All three stand drip. Where the glade is of a more formal character, as in illustration No. 172, a stone edging, such as that shown, may be more suitable, or, if the extra trimming of edges involved is not objected to, a freer effect may be obtained by arranging the stones as shown in the sketch (Ill. No. 173).

In the consideration of these three features, namely, formal and informal lawns and grass glades, we have mentioned constructional points which especially relate to each, and before turning to the subject of garden walks, must supplement these remarks with a few practical considerations which apply to all.

Briefly, the two things of paramount importance in the formation of a stretch of greensward of any kind are adequate drainage and a good soil. With regard to the first of these, if the ground retains too much moisture, the grass turns yellow and is also apt to burn sooner than on well-drained ground, for the roots are nearer the surface; in bad cases, grass refuses to grow at all and moss appears instead. Much money and time are often wasted on lawns



*Substitutes  
[or grass]  
under trees.*

*Drainage of  
lawns.*

FIG 172.

## LAWNS, GLADES AND GARDEN WALKS.

which are too wet, in sowing and fertilizing with bone dust and other manures, when all that is required is a proper drainage. The ordinary land drains are best for the purpose. These are earthenware pipes without socketted joints, and a layer of dry



FIG 173

filling laid over them. The water runs into the spaces between the stones and so into the pipes between the open joints. Occasionally one finds that, in certain soils, they soon become choked with loose matter. In this case, heather, furze or some other filtrant should be put into the trench round the pipes; but this should not be done without first consulting the farmer who has tilled the surrounding land, and

who will know the method which best suits the local conditions. All land drains will, of course, unless a good fall is obtainable, silt up in the course of years, and must be opened up, emptied and relaid, and this is why so many old lawns become sodden, bald in patches and slippery to the feet. The tendency to silt up can be very much lessened where it is possible to give the pipes a quick fall.

Where the whole surface of a large lawn, say a double tennis lawn, is to be drained, "herring-boning," as it is called, is the best. This consists of laying a main drain pipe along the longest diameter of the lawn and arranging tributary drains on either side every ten to fifty feet according to circumstances. The main drain may be six inches in diameter, with side drains of four inches, or four inches with the tributaries three inches, according to the wetness of the ground and the local rainfall. Where the outfall drain crosses a drive for heavy traffic, stoneware pipes should be used, being less liable to be crushed by heavy traffic. Sometimes drains are formed by cutting a trench and merely partially filling it with dry rubbish, such as dry flints, through which the water can percolate, then filling up with earth. In other cases a V-shaped trench is cut and the bottom part, about six inches deep, is bridged over with roofing slates or tiles.

*Soil for  
lawns.*

After good drainage comes a good soil. It is often considered wrong to have a good depth of loam on which to lay the turf or sow the seed, the impression being that it encourages rank grass. I have seen even a large tennis lawn finished with less than three inches of soil, with the result that in two years it was covered with moss. A lawn, like a meadow, requires to be in good heart, and must have a sufficient depth of soil. To prevent worms however, a layer of sharp clean ashes or coke breeze may be laid under the turf, or, where the lawn is to be sown down, under the top spit of soil.

*Turf for  
lawns.*

Whenever new turf can be obtained, this should be preferred to sowing seed, as the tender grass takes a long time and much mowing and rolling before it forms a mature lawn, whereas lawns laid with turf and well looked after would be available for games in two month's time or even less. The sods, carefully selected from a good meadow, are lifted with a turf spade in pieces about two feet six inches long and one foot broad, cut thick enough to carry away all the roots and plenty of loam. To prevent damage in handling and to keep it moist, each piece is tightly rolled up for transit and relaid as speedily as possible, when it must be made solid by being well beaten with a turf beater, and occasionally watered in dry weather until established.

Where turf is not available in sufficient quantities to cover the whole area of the new lawns, it should, if possible, be used for the edges of all walks, and for grass banks, and the rest should be sown. Although the latter method takes a considerable period to form a good lawn, the lawn will, in time, be quite equal to one which has been turfed and even six weeks after it is sown, the tender grass, if sown in the spring, will be green and fresh and pleasant to look upon.

## LAWNS, GLADES AND GARDEN WALKS.

The following prescription for grass seed is the one which I have found the most *Grass seed.* generally useful, and the quantities given are sufficient for one acre.

Cynesusus cristatus	...	..	...	.	..	.	...	...	..	4 lbs.
Festuca duriuscula	..	..	..	.			..	..	..	3 lbs
Festuca ovina tenuifolia	...	..	..	..	.	...	..	..	..	2 lbs.
Poa nemoralis	...	...	...	..	..	..	...	.	..	2 lbs
Poa nemoralis sempervirens	.	..	..	..	..	..	..	..	...	3 lbs.
Poa trivialis	...	..	..	.	.	..	.	...	...	2 lbs.
Trisetum flavescens	...	...	.	..	.	.	.	..	...	1 lb
Trifolium repens	...	...	...	...	..		..	..	...	6 lbs.
Trifolium minus	...	...		..	.	.	..		...	2 lbs.
Dwarf perennial rye grass	...	..	...	..	..	...	...	...	..	20 lbs
										45 lbs.

April is perhaps the best month for sowing, though in the southern Countries it *Sowing* may be done as late as September. The best way of proceeding is to prepare the *lawns* ground early Spring, removing all old roots, etc., and forming the surface. This will not only allow time for settlement before sowing, but those troublesome hillocks and hollows which appear after frost can also be dealt with. All newly turned ground is full of weeds in a few weeks in Spring time, and the work should be done early enough to allow of two crops of weeds being destroyed before sowing, and of course, before they seed. This gives the grass seed a chance.

Before sowing, roll the ground, then lightly scratch the surface with a rake, and after sowing roll firm and protect with a net or threads of cotton, and again eradicate all weeds as soon as they appear. When the seedlings are some two inch high, roll again, and by no means allow the first cutting to be done with a machine but with a sharp scythe. Not only does the machine exert an upward pull and so tear and disturb the roots of the infant grasses, but even with a scythe care must be taken not to cut too near the roots.

The comfort and success of a garden depend greatly upon the arrangement and *Walks.* quality of its walks. Flowers are delightful, trees and shrubs are interesting, but if, in order to reach them, it is necessary to traverse a walk unnecessarily circuitous, or one badly constructed or with steep and uneven gradients, the pleasure in the flowers and trees is largely discounted. Walks, may do much to make or mar the composition of the various garden scenes, and may either be so placed as to help the perspective and scale, or may cut across the view with a hard line out of harmony with everything. A garden of all places should express restfulness and ease.

The main principles which should guide in the formation of the walks of a garden are illustrated in all the plans in this work. The first of these is that a garden should not consist of a multiplicity of walks, but that each path should, by its planning and design, clearly express purpose. A certain number of walks and a proportionate amount of gravelled space are necessary to the design, but generally, lawns, flowers, trees and shrubs make the interest of the garden, and walks contribute to its comfort and enjoyment.

Walks and paths being an absolute necessity for convenience and for recreative purposes, they should induce to frequent use by having well conceived and harmonious lines, easy gradients and perfect metalling or paving, supplemented by seats and shelters conveniently placed. Their purpose of convenience or ornament being clearly expressed, they should lead the spectator in a simple, straight-forward manner to explore the extent and beauty of the gardens, to picturesque view-points of the house and domain, the wealth of flowers, and any other feature of special interest. In the freer or land-

## LAWNS, GLADES AND GARDEN WALKS.

scape portion of the garden, the practice of indiscriminately cutting up lawns merely for the sake of making paths cannot be too strongly condemned. In the formal portion nearer to the residence, division of the gardens by walks is often the most expressive way of securing character in the design

*Widths of walks.*

Walks which form part of the terrace scheme have already been mentioned in dealing

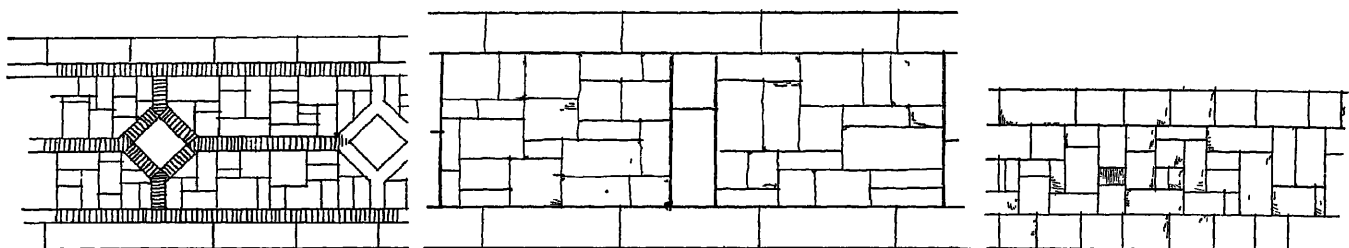


FIG. 174.

with terraces and terrace gardens, and many of the remarks then made apply equally to those in the formal garden. Generally speaking the walks in the more formal portions of the grounds should err on the side of being slightly too broad than too narrow. If not sufficiently wide they generally look mean. The most suitable widths vary from

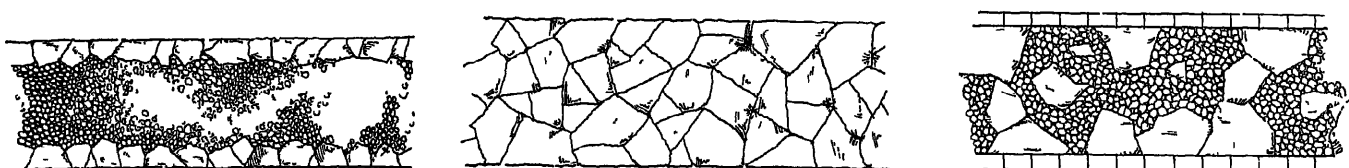


FIG. 175.

six to twelve or fourteen feet broad, the latter being for the main terrace promenade walks. In most gardens, the uniform width for the whole system of walks, apart from the main terrace scheme, is six to eight feet. In the panel garden on the other hand, it is better to err on the side of narrowness, unless the beds are very large,

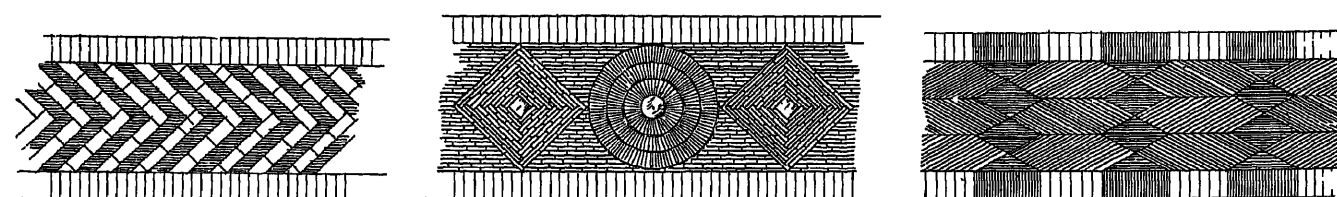


FIG. 176.

usually two to three feet wide, according to the requirements of the design, will be sufficient if the walk surrounding is ample

*Paved walks.*

Paving has also been incidentally mentioned in connection with the terrace scheme, and is equally adapted to the formal garden, as will be seen on reference to illustrations

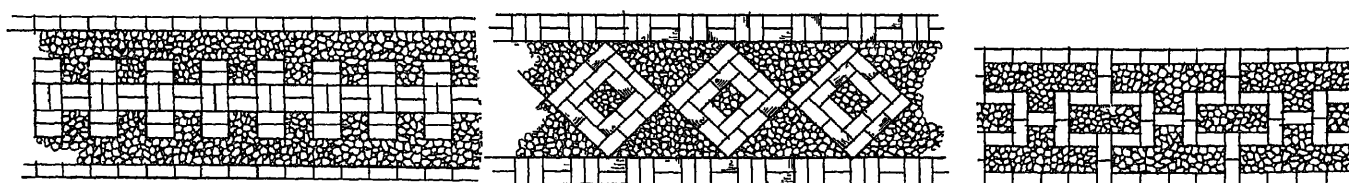


FIG. 177.

Nos. 174 to 177, which show combinations of brick, stone, and cobbles. In formation, special attention should be given to the foundations, which should be prepared by first removing all the soil and laying down a foundation of broken brick, stone, or other hard material, to a depth of about six inches, on which a stone pattern may be laid

## LAWNS, GLADES AND GARDEN WALKS.

and bedded in sand, or cobble paving may be laid in sand and afterwards grouted in cement, which is done by running liquid cement in between the stones with the aid of a hard broom and so consolidating the whole. If a layer or screen of cement is spread over the foundation material and the paving bedded into this, a very strong substantial footway will result, which will not readily grow weeds.

When the residence and accessories are in brick, an excellent and inexpensive path is formed by paving with the same materials, as shown in the accompanying plan of the paved garden at The Grange, Wraysbury, already referred to (Ill. No. 178). Visitors to Holland are impressed by the neatness and quaintness of the side walks paved with small klompje bricks; at Wraysbury, ordinary sand bricks were used, but, whatever

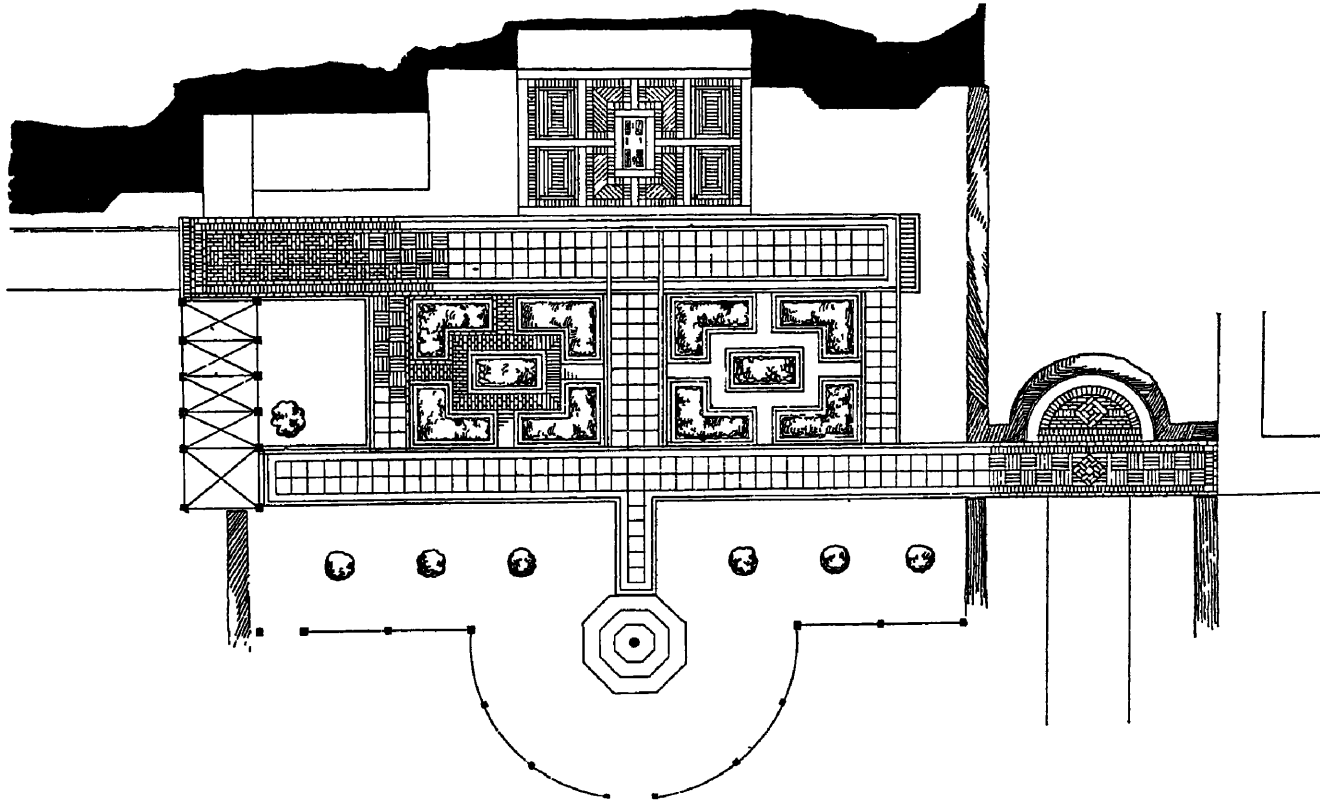


FIG 178.

bricks are employed, it is necessary to use weed killers with caution in their vicinity, for the copper sulphate which is the basis of most of them causes the bricks to scale.

Stone paths neatly laid with flags which will not laminate are very pleasing. Where material of two or three colours is available, a design in simple squares and lines, as shown in illustration No 174, may be very effective, and affords endless scope for originality. The writer has found, after a test extending over several years, that yellow York flags, procured from Idle or Morley, prove the most serviceable in wear and in colour, and harmonize well with the preponderating green of a garden.

Once or twice I have been asked to form a path across a lawn which shall appear as little noticeable as possible. In such cases I have recommended a narrow line of pea-green flags cut from Westmorland slate quarries. Their colour and the texture obtained by splitting at the quarry, are admirable for the purpose.

Although there are a few exceptional cases, such as the rock garden, where crazy paving may be used effectively, there can be no doubt that in most instances, this form of garden pavement results in one of the worst forms of affectation, like rustic garden houses, seats and bridges. Except therefore where special circumstances make such paving desirable, it is to be avoided.

Cement or asphalt walks are also, as a rule, undesirable. There are, however, one or two kinds of concrete less objectionable than the ordinary forms, which make

## LAWNS, GLADES AND GARDEN WALKS

pleasant paths. The best is the concrete coloured by oxides, another, deserving favourable mention, resembles mosaic floors, being a combination of concrete and broken gravel or granite chippings.

Gravelled  
paths

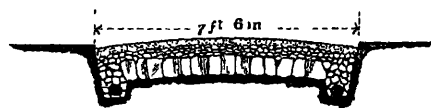


FIG 179

As will be seen from the accompanying section (Ill. No 179) gravelled paths are formed much in the same way as drives, the formation of which is dealt with in Chapter VI., the usual difference being that the former are not made with sufficient care. This is a great mis-

take, as very little extra expense in formation will make the walk more serviceable ever afterwards. On the section the ground has been excavated a little deeper at the sides to take a land drain, above which comes first the pitching, then material broken to about the size of a hen's egg, and on the top of this a layer of pinnell or gravel to form the surface, the best from the point of view of colour being the gravel obtained from Farnham, Carnforth, or the Wrekin. The red granite gravel used in the Highlands of Scotland is suitable, and beautiful gravel is sometimes obtainable in the neighbourhood of lead and copper mines. Where neither of these materials are available, the walk may be laid with hard pinnell or samel and receive a layer of fine pit or river gravel rolled in.

It is sometimes found desirable in garden schemes, both formal and informal, to make walks which cannot be connected at their termini with other walks or doorways, some feature, such as an arbour or seat, must, therefore, be supplied to atone for what appears to be faulty planning. Such opportunities allow the designer scope for originality, which, if successful, obviate all sense of inappropriateness.

Cul-de-sac.

This suggestion should not be read as commending the formation of a *cul-de-sac*. To be compelled to return by the same route is undesirable, therefore stop-end walks should only be made when there are strong reasons for so doing, as when leading to a particularly pleasing view, a rocky eminence for instance, ascended by solid hewn steps, or a rounded knoll surmounted by a patriarchal tree, and so forth. Where a walk turns abruptly at right angles for any reason, similar conditions prevail and call for the same kind of treatment as that employed where it abruptly stops.

Connection  
of formal  
and inform-  
al portion  
of grounds

Another difficulty occurs where a wild garden or wilderness adjoins and is connected with a formal scheme, the treatment at the point of connection between the two usually being anything but happy. To conceal the point of transition is usually hopeless, and it is far better to mark it definitely either with a fence and simple gate, or a pergola, summer-house or arbour, placed across the path as in illustration No. 368, or a little gatehouse or an arch of Yew, or two trees pleached over the path, would, in some instances be most effective.

In the informal garden it cannot be said that walks are at all necessary as ornament, for continuous stretches of greensward generally look better, but, as dry walks are



FIG. 180.



FIG. 181.

necessary, the art of the practitioner should be directed to making them as pleasing as possible. One of the first essentials is to make them express by their route and curves the contours of the land, as already suggested for informal carriage drives, and they should always have some definite and adequate objective, such as an important point in the garden, a short cut to church or village, or happy connection with other walks, or the terrace scheme. Where they are raised above or sunk below the natural level, or cut out of the side of a hill, they should also be treated as recommended for drives



in such positions with a flat verge about three feet broad on either side and then banks arranged in flowing lines to meet the natural contours, as shown in the accompanying sections (Ill. Nos 180 and 181).

Repton, who must have had a keen appreciation for beauty of line, laid down certain rules for walks passing through a garden designed in the landscape style. The first and most important was that, when two walks diverged, they should not appear as though intended to join again, as in illustration No 182, but rather as though they led to points far apart, as in illustration No. 183. Another rule was that curves should not be too small or unnecessarily repeated. They should instead be blended into long sweeping lines. A third rule, not specially referred to in his writings but followed in his practice, is that where anything approach-

*Repton on  
garden  
walks*

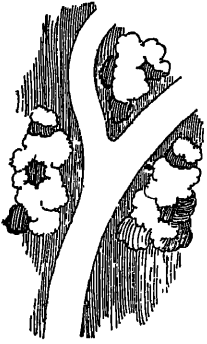


FIG 182



FIG 183

ing a network of walks is necessary, they should not all be seen at once. These three rules, if properly observed, would do much to remove many of the objections raised against the informal method of laying out grounds.

It is sometimes necessary to connect walks which are part of the pleasure grounds or walks leading from the conservatory, garden entrance, or other particular portion of the house, with the carriage drive. The best way in such cases is, wherever possible,

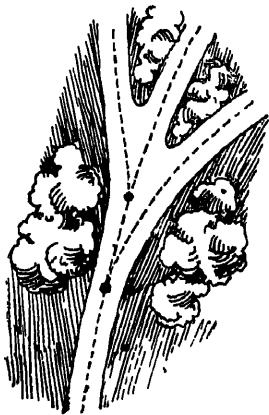


FIG 184

to effect a junction with the carriage sweep, but if it becomes necessary to connect such paths with the drive, the same conditions should be observed as before described in making a back drive, or the junction should be at right angles, which would be still better. This does not necessarily mean that they are to be brought up straight in order to describe a rigid angle. They may continue and intersect on the curve and yet practically make a right angle crossing.

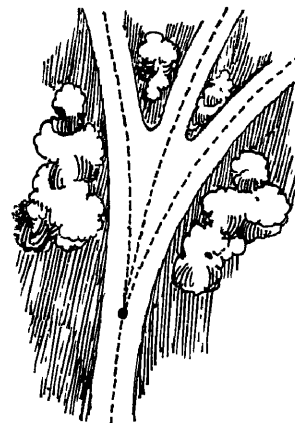


FIG 185

The junctions and intersections of walks, whether single junctions or double ones, straight or curved, are by no means haphazard matters, but must be determined geometrically, with their centre lines at the crossing, in conformity with some demonstrable principle. Nor must the curves be allowed to lapse into slight deflections from the straight. In a double junction the centre lines ought not to branch off from the points as illustration

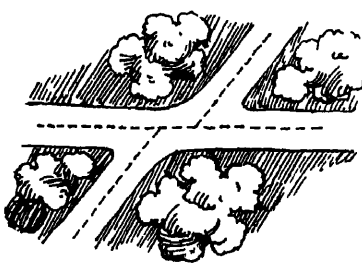


FIG 186.

184, but from one as illustration 185. Again in illustrations 186 and 187, at the crossing of two straight walks, the former is obviously wrong, because the continuity of the centre lines is broken. All such deflections denote hesitancy, and a deflection from a centralized purpose, which, however picturesque the results may be, is not the

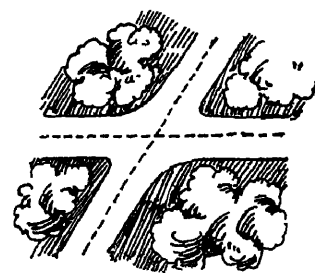


FIG 187

ideal. In the garden there is no "science of obliquities," such as was promised by certain architects who had discovered in the irregular plan and out-of-perpendicular lines of the majority of the cathedrals, and which doubtless aids their picturesque appearance.

For verges to garden walks other than terrace paths grass would, by general consent, Verges



## LAWNS, GLADES AND GARDEN WALKS

be allowed to be the most suitable, but grass so neat when compact, is disappointing when untidy or sparse. This is most noticeable in the many instances where a narrow grass verge borders a drive overhung by trees, when nothing will prevent it from being ruined by the drip from the branches, and where it would be far better dispense with it and replace with some shade-loving plant which succeeds under trees, such as ivy trimmed level and to a line, cotoneaster microphylla similarly treated, gaultherias, hypericum calycinum, or dwarf sweet briar hedges or box, say, one and a half feet high. Failing these, a border of rough stones, as illustration No. 188, cobble paving or narrow free-stone flag or other local paving material might be had. The edgings to be avoided are those consisting of blue bricks, white spar, fancy blue or coloured edging tiles, shiny terracotta, glazed bricks, cement or granolithic, and also any material laid in a series of scallops or jagged points

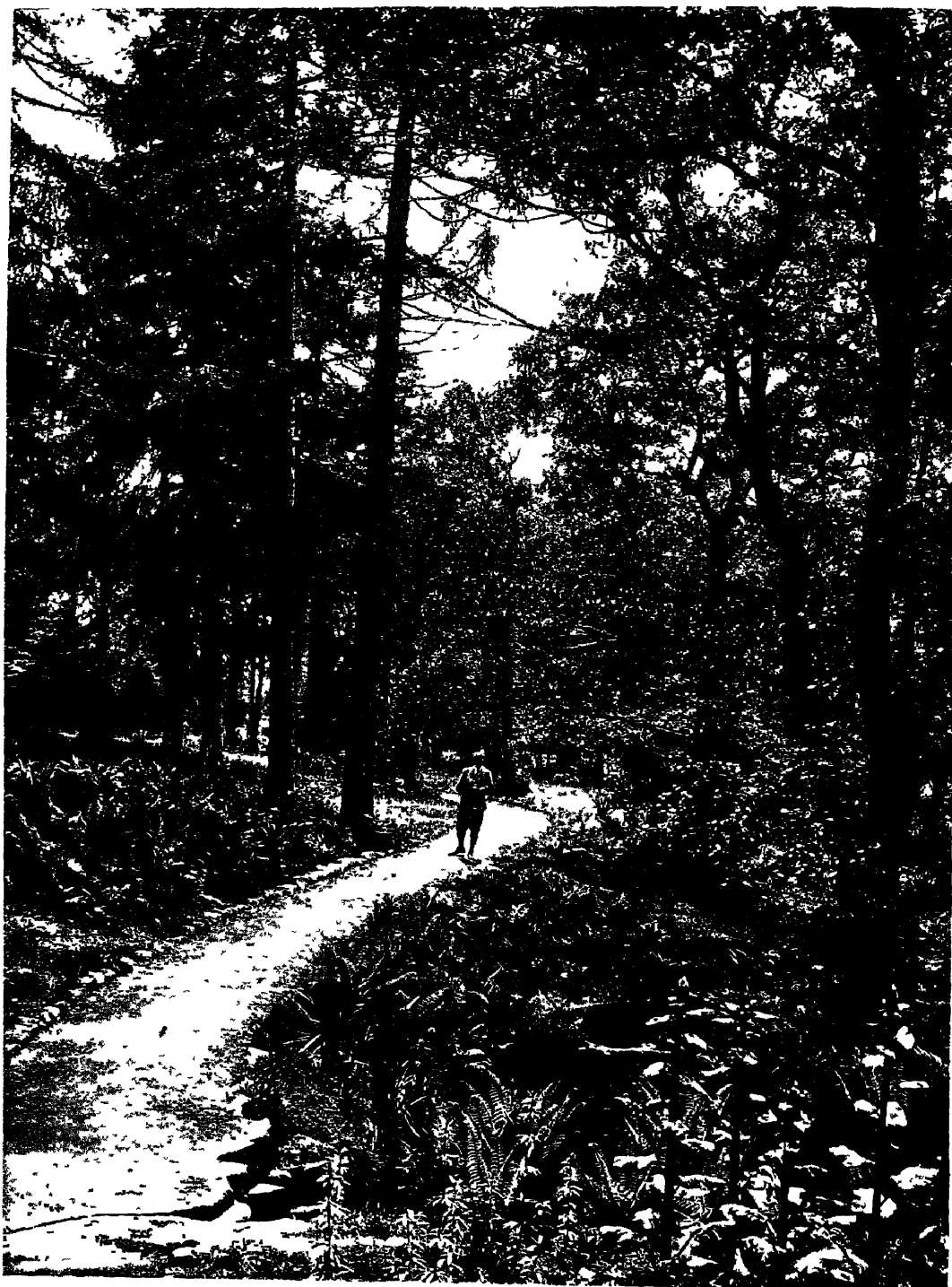


FIG. 188.—WOODLAND WALKS AT MOUNT STEWART

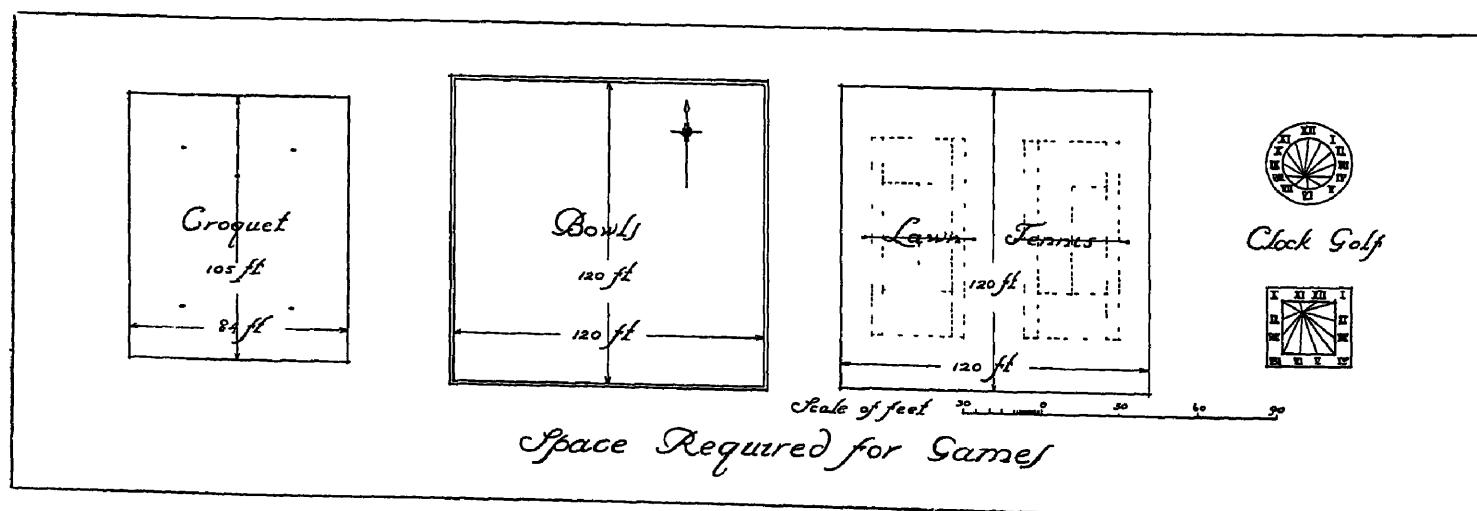
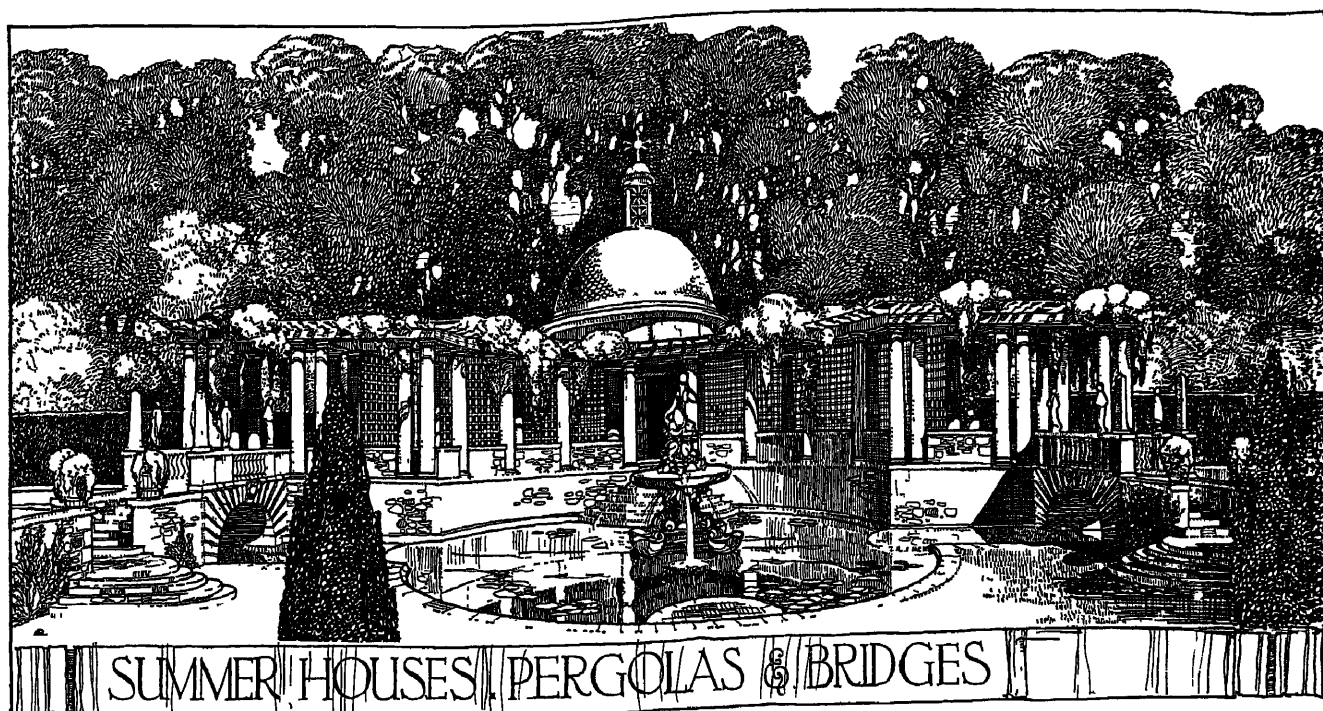


FIG. 189.





FIG. 190.—INTERIOR OF COLONNADE AT WALHAMPTON FOR LORD ST CYRES



## CHAPTER X.

The four features dealt with in this chapter, namely, Verandahs, Summer-houses, Pergolas and Bridges, are architectural adornments fulfilling a practical as well as an æsthetic function in the equipment of the garden, they are closely related both in planning and effect

Being considered simply as adornments has been an excuse for dotting them about indiscriminately without reference to the general scheme considered as an harmonious whole. This tendency has been to bring architectural objects into disrepute and has given an incentive to rusticity.

No garden feature is to be considered as a thing apart, and should fall inevitably into its place, being designed and detailed to accord with the surroundings. If they are disproportionate, clumsy in construction, their ornamentation and details coarse or meaningless, people of taste are unfavourably influenced towards the whole scheme.

If such things as ricketty wood or spidery cast-iron verandahs, or would-be rustic summer-houses, shiny with varnish and stained glass, are placed in front of dignified residences, breaking their alignment and destroying all breadth of treatment, or rustic bridges, heavy in design and insecure looking, are made to span somewhat imaginary streams, the whole scheme is judged accordingly.

The increasing love of out-door life which has been so pronounced in recent years in this country, makes a spacious verandah or colonnade on the south front of the house a necessity. Many skilful architects incorporate this feature into their home plans and make it an integral and harmonious part of their design, and in those country houses which are to be used as summer residences only, there is even a tendency to transform the verandah into a large square open-air dining room, occupying the whole of the ground floor area of one gable, the upper rooms of this block being supported on pillars. Such an arrangement would need to be carefully backed up by the garden architect if it is to be a success, not only on account of the exceptional architectural treatment involved, but also to give it shelter and privacy.

*Verandahs.*

In the ordinary verandah placed in front of and approached from the entertaining rooms, the first practical question is that of providing sufficient light to the windows at its back. This is especially so in those cases where a house has been acquired and beautiful grounds laid out, and it is desired to erect a spacious sheltered verandah, from whence to view the gardens in all weathers, and which will not obstruct the light.

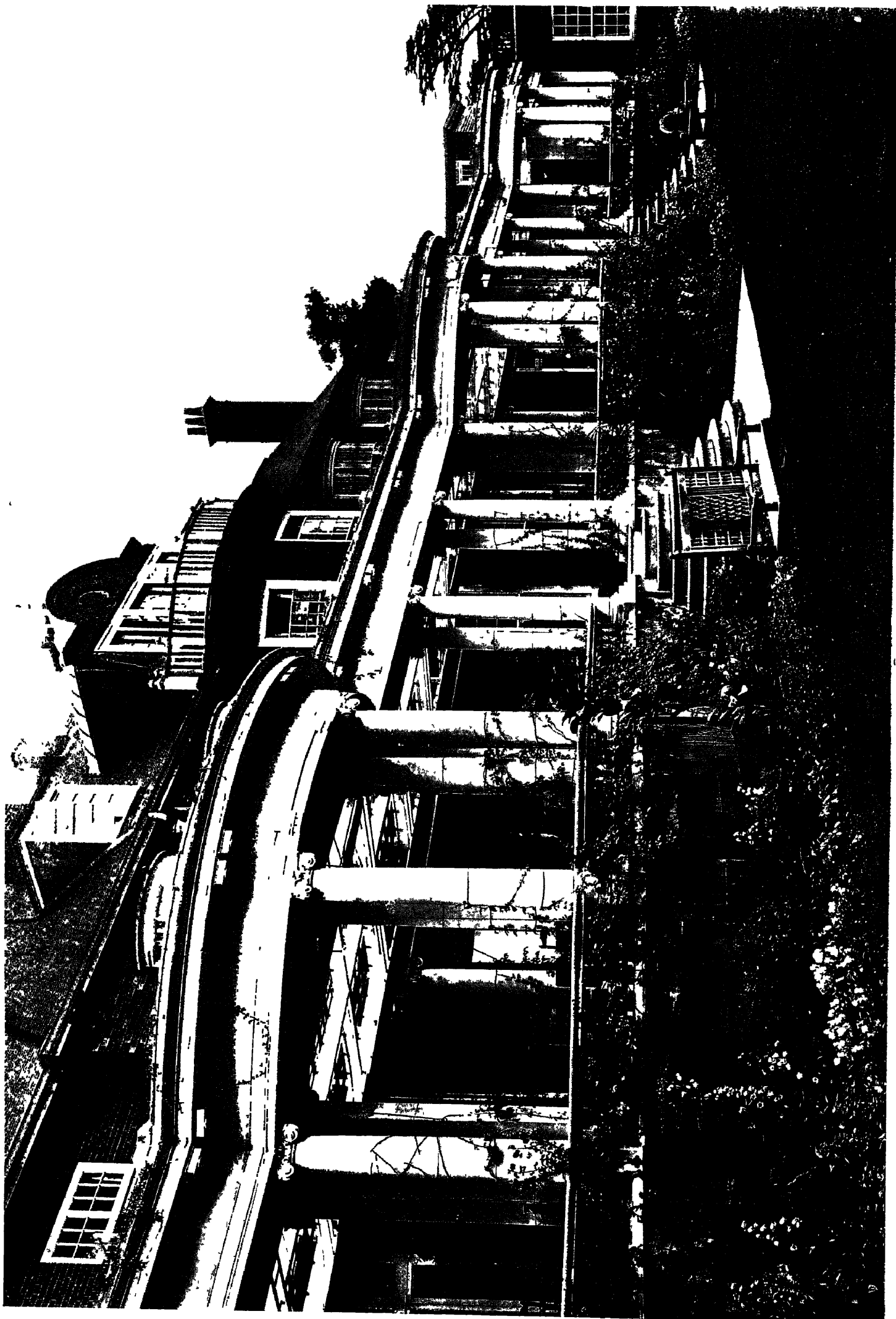


FIG 191.—VERANDAH AT "THE HILL," HAMPSTEAD.



FIG 192 —INTERIOR OF VERANDAH AT HAZELWOOD, SILVERDALE

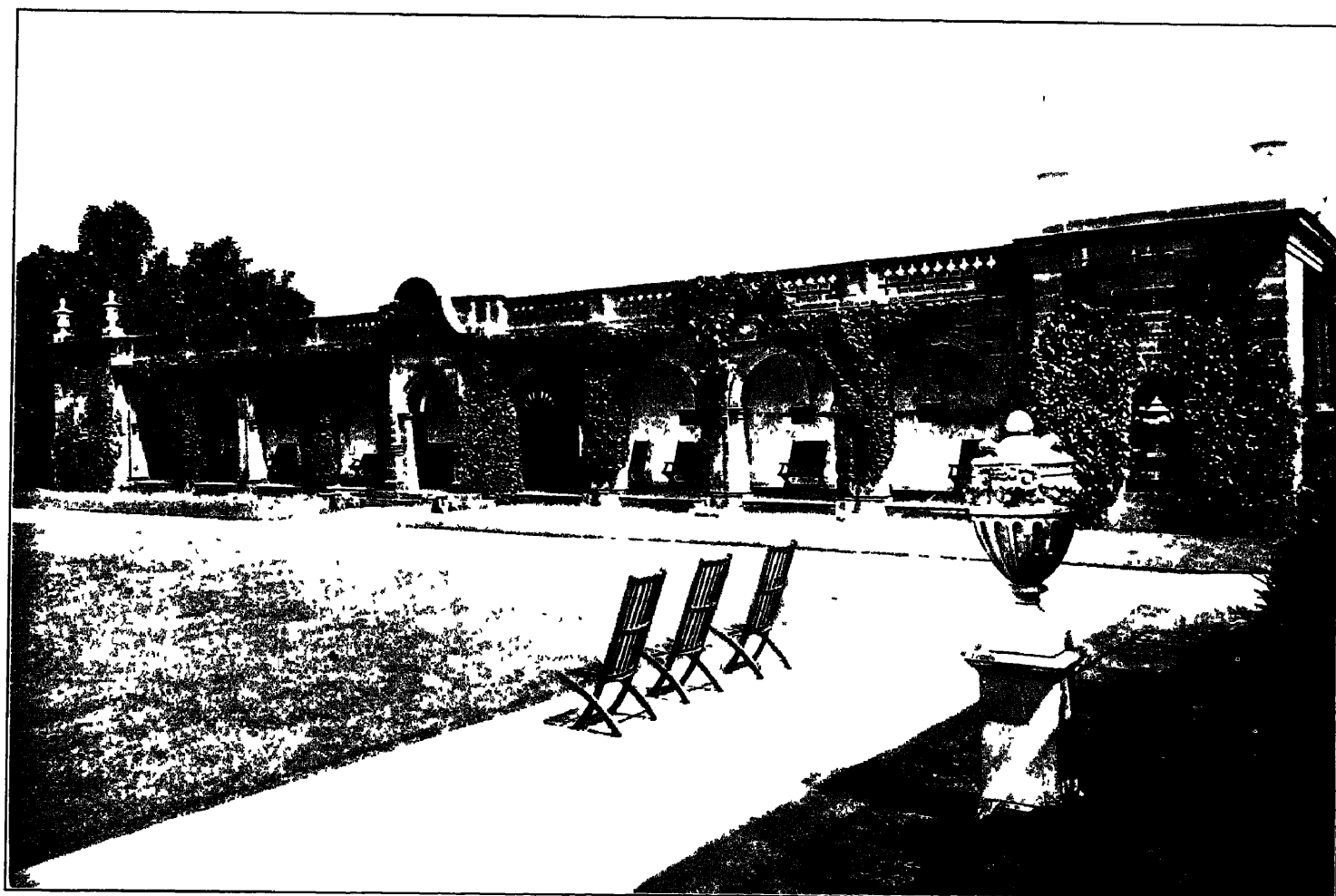


FIG 193 —COLONNADE AT THORNTON MANOR

## SUMMER-HOUSES, PERGOLAS AND BRIDGES.

An attempt to do this, which has proved eminently successful, is shown in illustration No 191. In this instance an existing terrace seventeen feet in width has been covered in with a glass roof, which, while it passes adequate light, does not show from the garden below, and which is not too insistent or obtrusive from the verandah itself.

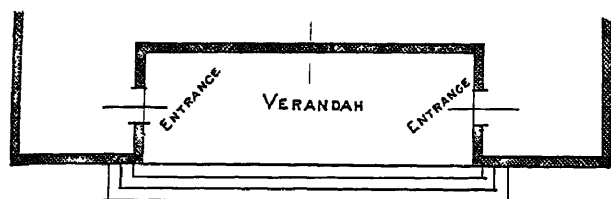


FIG 194

*Verandahs  
to neo-  
classic  
houses.*

The principle which has dominated the design in this case might be adapted to harmonize with any small country or suburban house where such a feature is to be added.

Where the house is built in the classic style with a pillared facade, the verandah is placed behind it, the hall being recessed

for the purpose, and the entrances from the entertaining rooms being arranged as shown on the sketch (Ill No. 194). This arrangement is, of course, only available when light can be admitted into the hall at its opposite end, and can only be contrived when the whole house is being planned. In such cases it is not possible to add a verandah after the house is built, but loggias may be substituted. These features are generally placed at either end of a garden court or architectural terrace, as shown in the sketch (Ill. No. 195), and if properly contrived and designed in harmony with the classic details of the residence, may add greatly to its effect by broadening the facade and strengthening its base. Such structures are usually placed as terminal features on a terrace, clear of the main front of the house, for they cannot be placed in front of houses of classic design without destroying the element of breadth so necessary to a dignified composition. The homelier mansions however, built in local traditional styles and without marked symmetry of their parts, are often helped by one or a pair of garden houses in front.

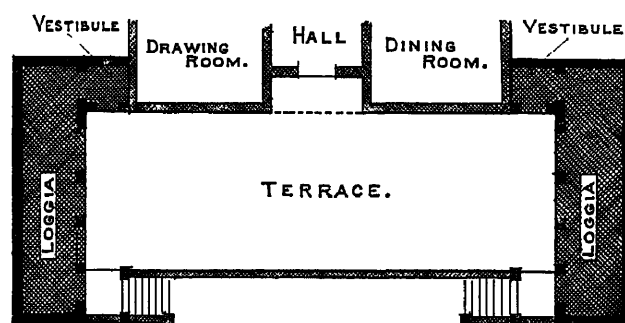


FIG. 195

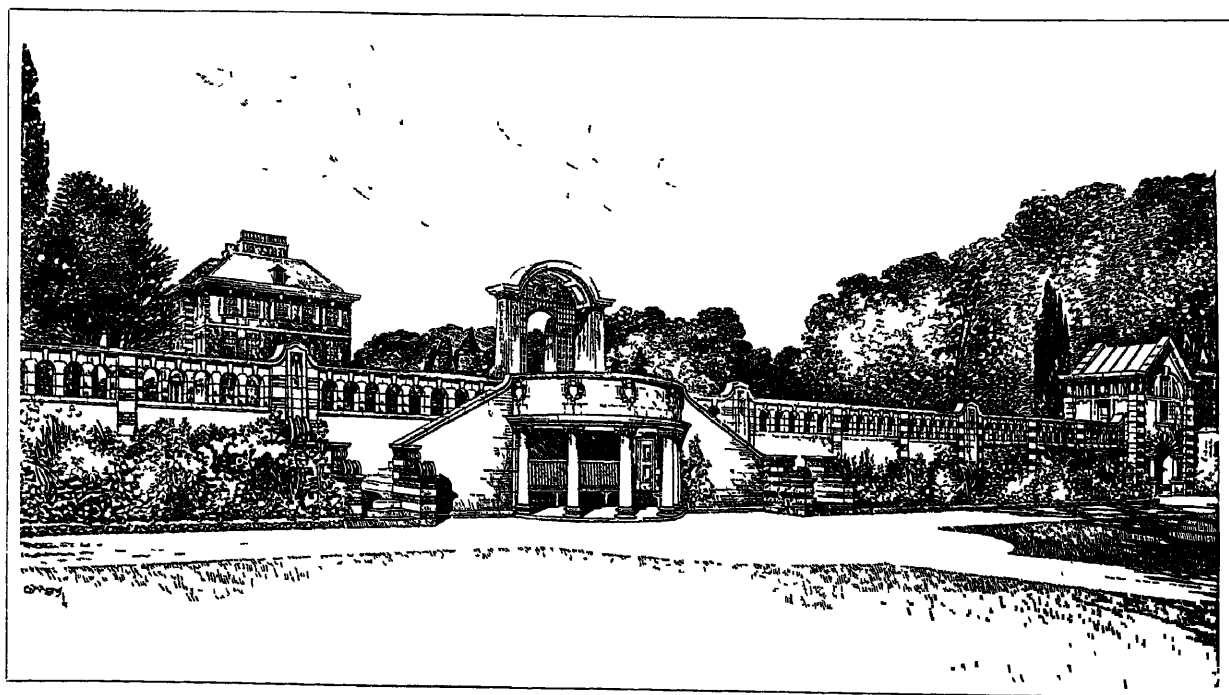


FIG. 196

*Garden  
houses.*

If the terrace to a classic building extends far enough on either side of the main structure, the composition may be improved by a colonnade (illustrations 190 and 193).

Two designs for garden houses terminating extended terraces are shown in illustrations Nos. 196 and 504. The first of these shows a terrace design in connection with Foots



## SUMMER-HOUSES, PERGOLAS AND BRIDGES.

Cray Place, in Kent, and illustrates many points bearing on the arrangement of the surroundings of early renaissance buildings; the second, which formed part of the garden scheme to Dalham Hall, near Newmarket, the seat of the late Cecil Rhodes, is more in keeping with the spirit of a Georgian residence

A summer-house designed to pronounce architectural emphasis at the ends of a terraced lawn is shown in illustration No. 197. It was erected in Westmorland, of local slate-stone. Illustration No 198 is one of a pair of garden houses intended to continue in the grounds the dominating architectural note pronounced in the mansion to which the terraces form the foreground. They serve also to break up a somewhat flat expanse of garden and provide the antidote to a preponderance of horizontal lines.

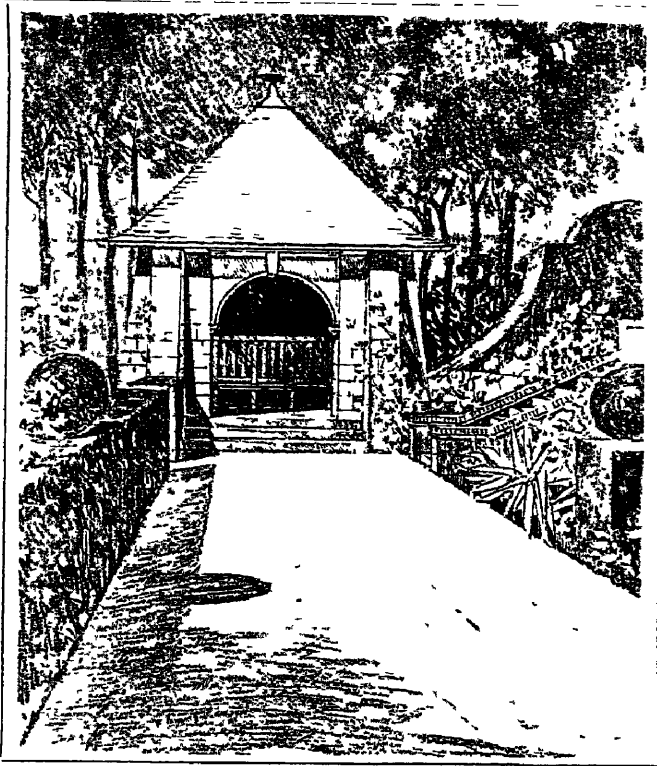


FIG 197.—SUMMER-HOUSE AT END OF TERRACE



FIG 198 —SUMMER-HOUSE IN SAME STYLE AS THE MANSION

and at the same time supply convenient rest-houses. Here, as in the previous examples the garden-houses are placed equidistant from, and on either side of, the main axial line through the house and grounds.

In the cases mentioned, the garden houses are erected in conjunction with symmetrical houses, this note being expressed also in the gardens. Symmetry is however not always possible or desirable; even where the house and grounds are both symmetrical and balanced as a whole, it will very often be found that practical considerations interfere with its attainment in some of its details. An example occurs where one end of a terrace is finished with a summer-house and the other must necessarily be left open for access to other parts of the grounds, or because an erection would interfere with the view from important windows of the house, or otherwise. Balance must then be obtained by other means. Sometimes it can be achieved by elaborating the flight of steps at the open end, or the terrace may be continued at right angles along another facade and the balancing feature be placed at its far end, or a gatehouse or lych gate may be placed opposite the loggia. Where none of these expedients are possible, balance may be obtained by the treatment of the terrace scheme itself, or the design of its walls, or it may be extended further towards the summer-house than on the other side of the main axial line.

Quite apart from the terrace scheme, however, there are many positions in which garden houses may be used. They may mark the end of a favourite walk, or the



## SUMMER-HOUSES, PERGOLAS AND BRIDGES.

point where a special view is obtainable, or as a classic temple (Ill No 199) to close a formal vista. Such erections must be designed in strict relation to their surroundings, and their elaboration or ruggedness determined according to nearness to or remoteness from the mansion. However rural their surroundings, nothing can justify spurious rusticity. Rusticity is allowable and even desirable amidst suitable surroundings, but it must be structural and designed on architectural lines without offending the canons of art. In illustration No. 197 rusticity has been imparted to the summer-house and a pleasant local character obtained by using the native stone quarried on the site, but this rusticity is consonant with and is expressed in architectural terms. On the other hand, in illustrations Nos. 200 and 201, the erections were so near the house as to necessitate strict adherence to the architectural style of the main building.

Examples of garden-houses connected with outlying portions of the garden are shown in illustrations Nos. 204 and 205. The latter is erected on an elevated site at Cringlemere, Windermere, and being furnished with a fireplace it is cosy at all seasons. From the verandah on the east, west and south sides a magnificent panorama of lake and mountain is to be seen.

Illustration No. 202 represents a pair of shelters erected at the end of a straight glade, cut through a natural oak plantation; they flank a terminal terrace bastion overlooking a broad expanse of downs and heights in Dorsetshire.

The garden house illustrated in the end paper adjoins Dartmoor and is built of the local coarse-grained granite. The design was suggested by the elevated nature of the site, together with the fact that it would always be visible from the main entrance door to the house, with which it is placed symmetrically. The interest of the prospect in this case is largely made by the garden foreground and middle distance of the home park.

The garden house at Foots Cray Place (Ill. No. 167) with its semicircular pergola in front, is another instance where the objective is a view. In this case it was necessary to carry up the garden house to a second storey to obtain the full advantage of it.

A primitive summer-house or arbour is often required in the wild garden, or in the woodland, or in specially interesting spots away from the dominating architecture of the residence. Such may be constructed of any material ready to hand; in a stone district, of rough, rubble-built dry walls roofed with thatch, straw, gorse or possibly slated. Where the cost of stone or brick is prohibitive, wood might be substituted throughout, and the roof slated or shingled; such erections, built in the simplest and



FIG. 199 —TEMPLE OF THE SUN, KEW GARDENS.

*Primitive  
summer-  
houses.*

## SUMMER-HOUSES, PERGOLAS AND BRIDGES.

most direct manner, and no attempt being made to ornament them by twisted oak or virgin bark, will generally provide a summer-house, possessing all the charm of which such a retreat is capable and the rusticity would be real and not of the sham description previously referred to.

Having considered the planning and outward presentment of garden houses, there remains the question of their interior fittings. These will, of course, depend on circumstances. In the one over-looking Dartmoor referred to above, it was intended to accommodate a small library of garden and nature books. This necessitated an ample room with an open fireplace and electric light. Sometimes a large summer-house makes a splendid playroom for children, especially for boisterous noisy games. In any event it

*Interior fittings of garden-houses.*

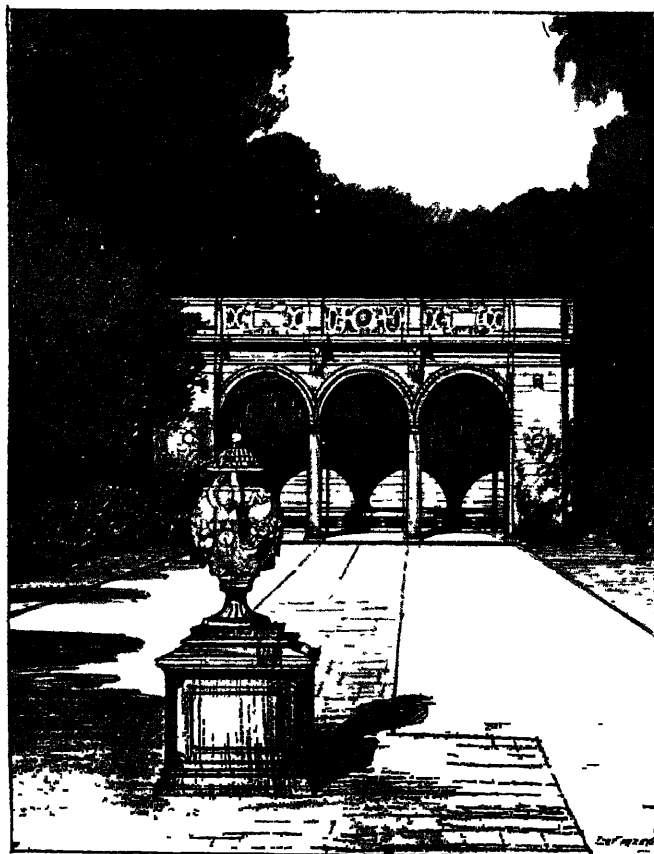


FIG 200

SUMMER-HOUSES IN SAME STYLE AS THE MANSION

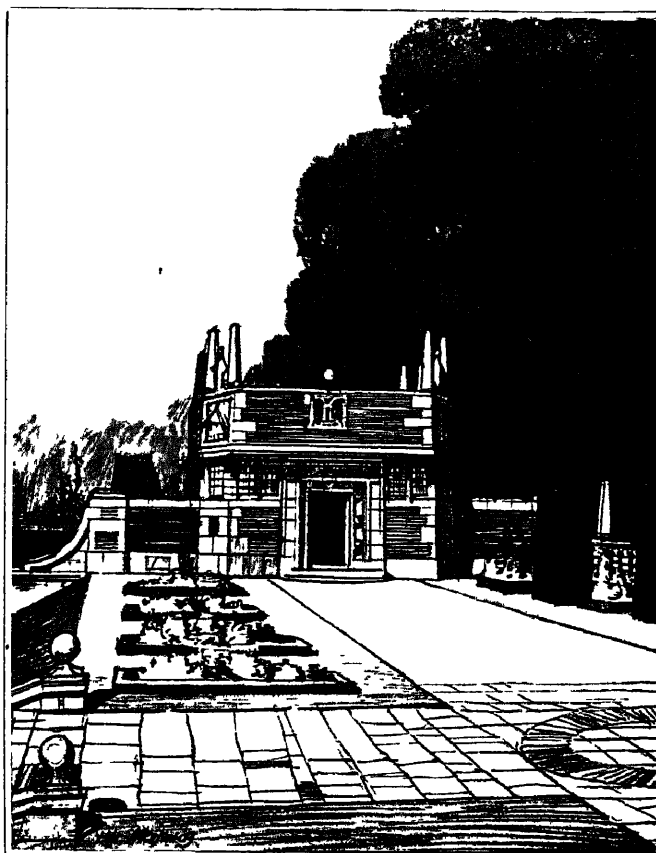


FIG 201.

provides a convenient and accessible retreat from sudden showers when they are playing out of doors. As they grow older, it may be fitted with quaint furniture and simple utensils for the first lessons in housewifery, which will be all the better learnt under such pleasant conditions.

Enclosed formal gardens do not appear complete without a garden house arranged somewhat as suggested in illustration No. 206. Garden houses which accompany the tennis and other games' lawns fulfil the dual purpose of a shady retreat from which to watch the game, and also a tea room. Cunningly contrived and quaint cupboards in and around a chimney nook, and large chests under the window seats, should be supplied for storing tennis nets, bowls and croquet mallets.

Whenever a stream passes through a garden or park, a bridge of some sort is sure to be required. Its character and design will be decided, not only by the size of the stream, but also by the relative importance of the road or path it carries by the size and extent of the domain, and its position in relation to the mansion.

*Bridges.*

Many materials may be adopted, but whatever the surroundings or circumstances, it will generally be found to be much the wisest and most economical in the end to build in stone or brick; or, where wood must be employed, in wrought oak strongly



FIG 202 —SHELTERS AT END OF GLADE, LEWISTON MANOR

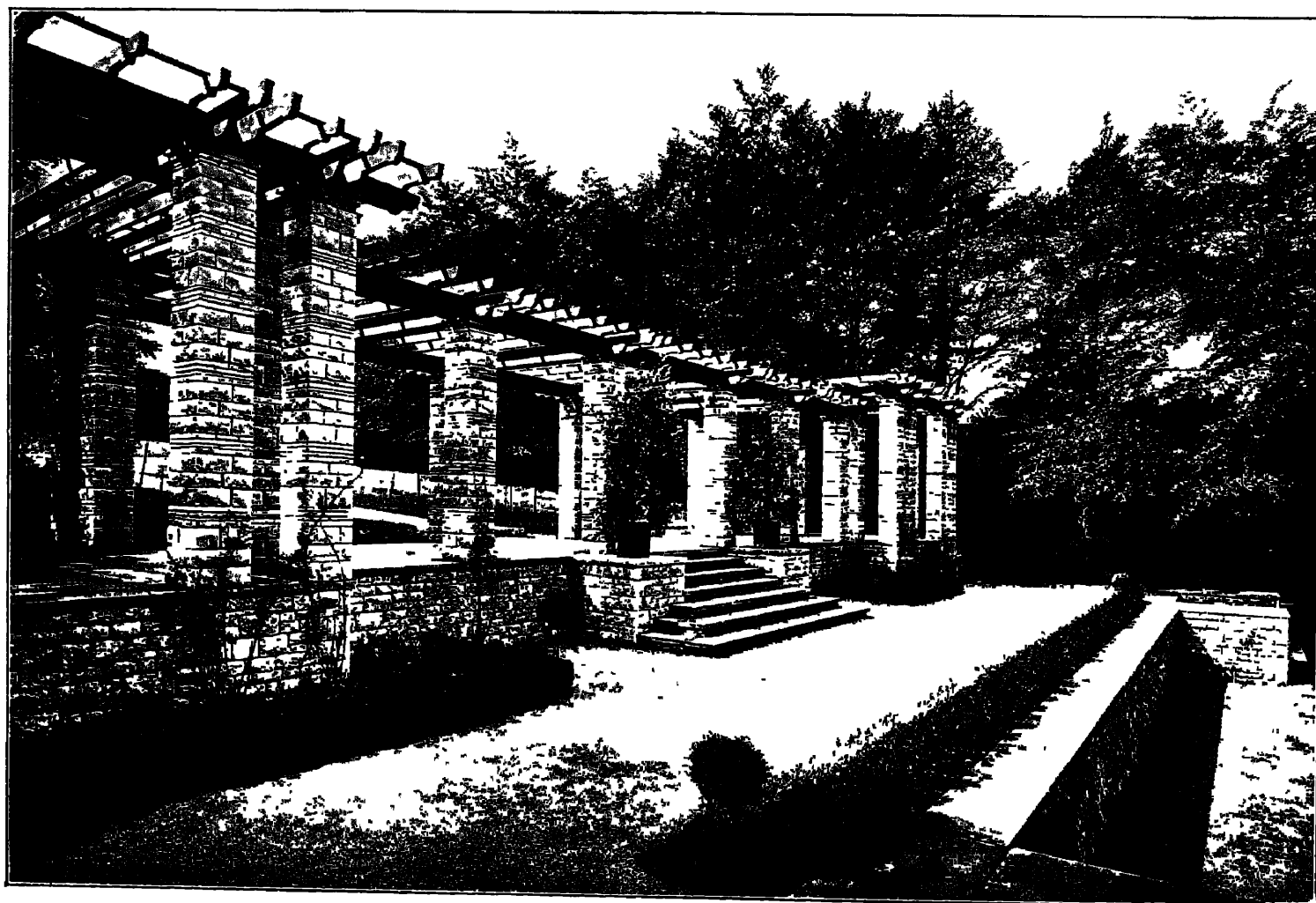


FIG. 203 —PERGOLA AT HAZELWOOD, SILVERDALE

## SUMMER-HOUSES, PERGOLAS AND BRIDGES.

pinned together Iron is seldom satisfactory and makes no appeal to garden lovers.

*Iron  
bridges.*



FIG. 204 —SUMMER-HOUSE AT END OF GARDEN WALK.

There are, however, many positions where it may be used with perfect propriety, and without injury to the natural scenes if designed in keeping with the main proportion of the structure, and if it is kept plain and free from cast-iron filigree ornament. Better results may be obtained by combining iron with stone, as when stone bastions or pilasters, crowned by sculptured figures, support a plain girder bridge, as in so many parks on the Continent. The advantage of iron is that it is possible by its aid to cross a wide stream or gorge at comparatively little cost, as at Lord Armstrong's grounds at Craigside, Northumberland. Only under such conditions are iron bridges justifiable in the garden. Unquestionably stone or brick lend themselves more sympathetically to the interpretation of its spirit.

*Stone  
bridges*

A stone bridge need not be elaborate; indeed there are few places grand enough to stand a palladian bridge such as at Wilton; seldom does opportunity call for one on such a scale as that which spans the river Derwent at Chatsworth; and even in this classic example (although,

from the usual view point, given in illustration No. 208, the bridge and house form a logical and harmonious composition), the æsthetic connection is somewhat lacking, and the spectator feels that either the more formal portion of the grounds should have been brought into direct relation to the bridge, or else the bridge ought to have been simplified.

Whenever a bridge is visible from the mansion or forms a part of the pleasure grounds or park, its design and proportions, as well as its details, need to be carefully balanced against its surroundings. Especially is this so where, as at Ballimore, in Argyleshire (illustration No 207),



FIG. 205 —SUMMER-HOUSE AT CRINGLEMIRE, WINDERMERE, OVERLOOKING LAKE AND MOUNTAINS.

## SUMMER-HOUSES, PERGOLAS AND BRIDGES

it forms a part of a formal terrace scheme as well as a vantage point from which to view the natural stream shown in illustration No 287, with its sylvan glades. On the one hand it had to harmonize with the architectural details and scale of the terrace, and yet, on the other, must not clash with the natural scenery beyond, nor form a hard dividing line between the two.

As in the case of terrace walls and every other form of garden architecture, the character of the house dictates the materials and style if they adjoin one another, if not local conditions will have their influence. Thus, in illustration No 210 is shown a bridge erected in the Dartmoor garden, mentioned previously, of local granite; and in illustration No 209 an old bridge of rag-stone, each being stamped with the local character.

Oftentimes a simple bridge built of rubble walling with a neat flag coping answers all purposes. In any case it is better to err on the side of plainness than ostentation. Very small bridges should be constructed of oak,

*Wooden bridges.*

but never of the so-called rustic work which, besides offending the canons of art in general, looks either brand new or dilapidated. Where a wooden bridge is necessary, it should be of straightforward, honest carpentry, with as much quaint construction and strutting as this will allow for. Such bridges outlast the so-called rustic affairs so often used because they

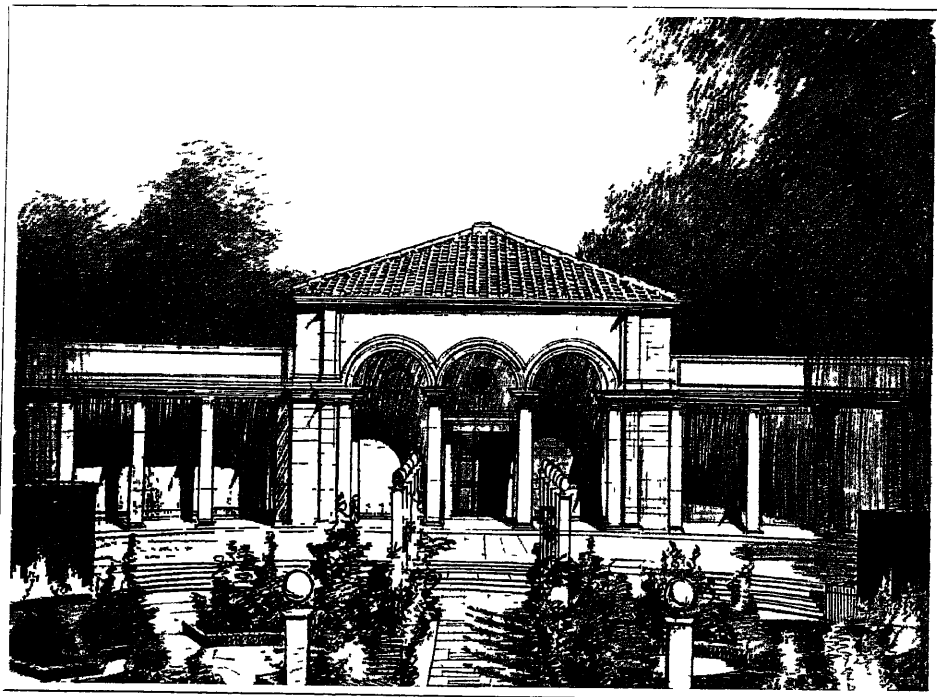


FIG. 206 —SUMMER-HOUSE WITH LOGGIA.

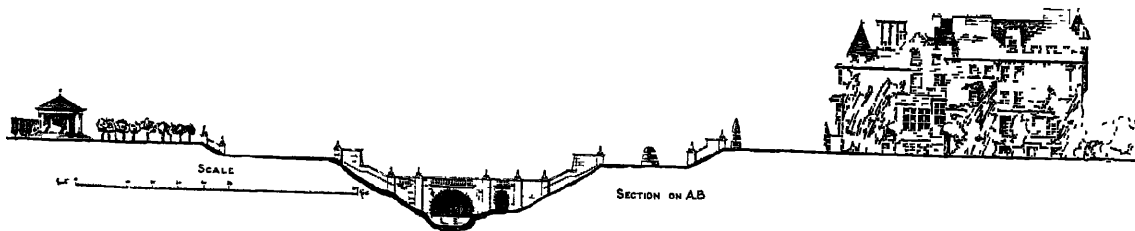


FIG 207.—SECTION OF GARDENS AT BALLIMORE, ARGYLESIRE

are cheap. A representative design for this class of work is given in illustration No. 211, which shows a bridge designed by the Author for the late Colonel Sandys, M.P.; a more rustic erection, suitable for the wild garden, is shown in illustration No 314.

*Super-structures for bridges*

The effect of bridges may be enhanced by coupling them to other superstructures, such as the summer-house shown in illustration No. 289 which represents the outlet to a formal canal at Kearsney Court, near Dover. In other instances, a pergola may stretch the whole length of the bridge, and extend along the path on either side, the part over the bridge being marked by extra height and square arbour-like broadenings at either end. A gate at one end of the bridge affords the opportunity for a delightful

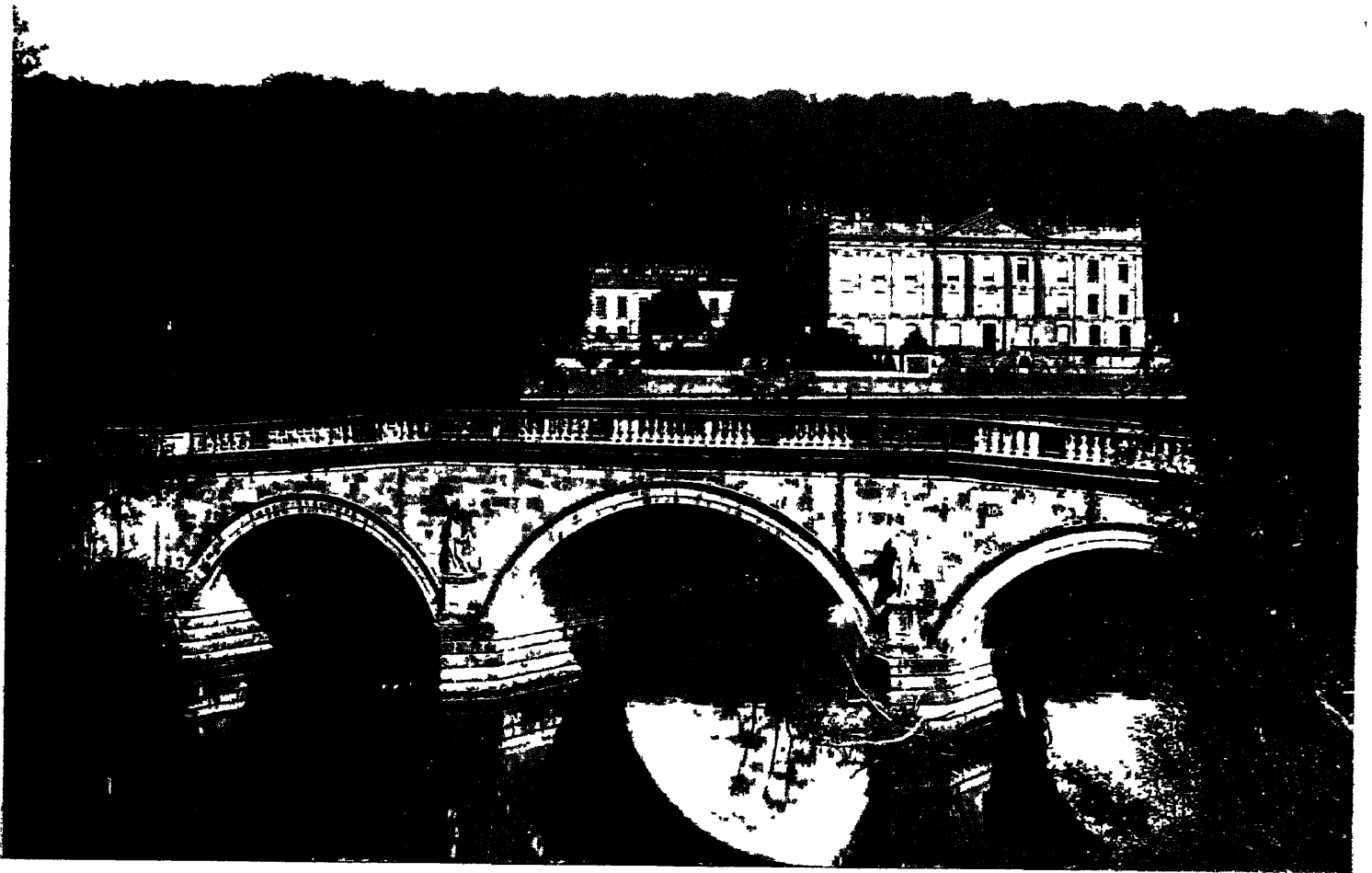


FIG. 208 —THE BRIDGE, CHATSWORTH.



FIG. 209.—OLD RAGSTONE BRIDGE AT LYNMOUTH, SHOWING INFLUENCE OF LOCAL MATERIALS ON DESIGN.

## SUMMER-HOUSES, PERGOLAS AND BRIDGES.

composition, and if the bridge is of stone or brick, balustraded panels to match the design for the gate may be inserted in the parapet walls over the centre of the arch. In cases, where the ornamental canal or lake allows a boat, delightful combinations of bridge, boathouse, and landing stages may be arranged, and where a fall in level can be

obtained at the bridge a cascade may be added to increase the interest.

Occasionally a bridge is required to connect portions of a garden intersected by a public road. Speaking generally, this means of communication should not be adopted unless the road is in a cutting at a much lower level than the gardens on either side, or at least on the side nearest the residence. If the bridge is perched so high that it has an unrestful appearance from the gardens, it is a mistake to include them.

Pergolas, unlike bridges, are required in almost every garden; although, as their name implies, they are an imported feature. They differ little from the ancient bower walks either in construction or spirit. The latter was usually made of hoops of iron placed some six feet apart, forming a series of arches clad

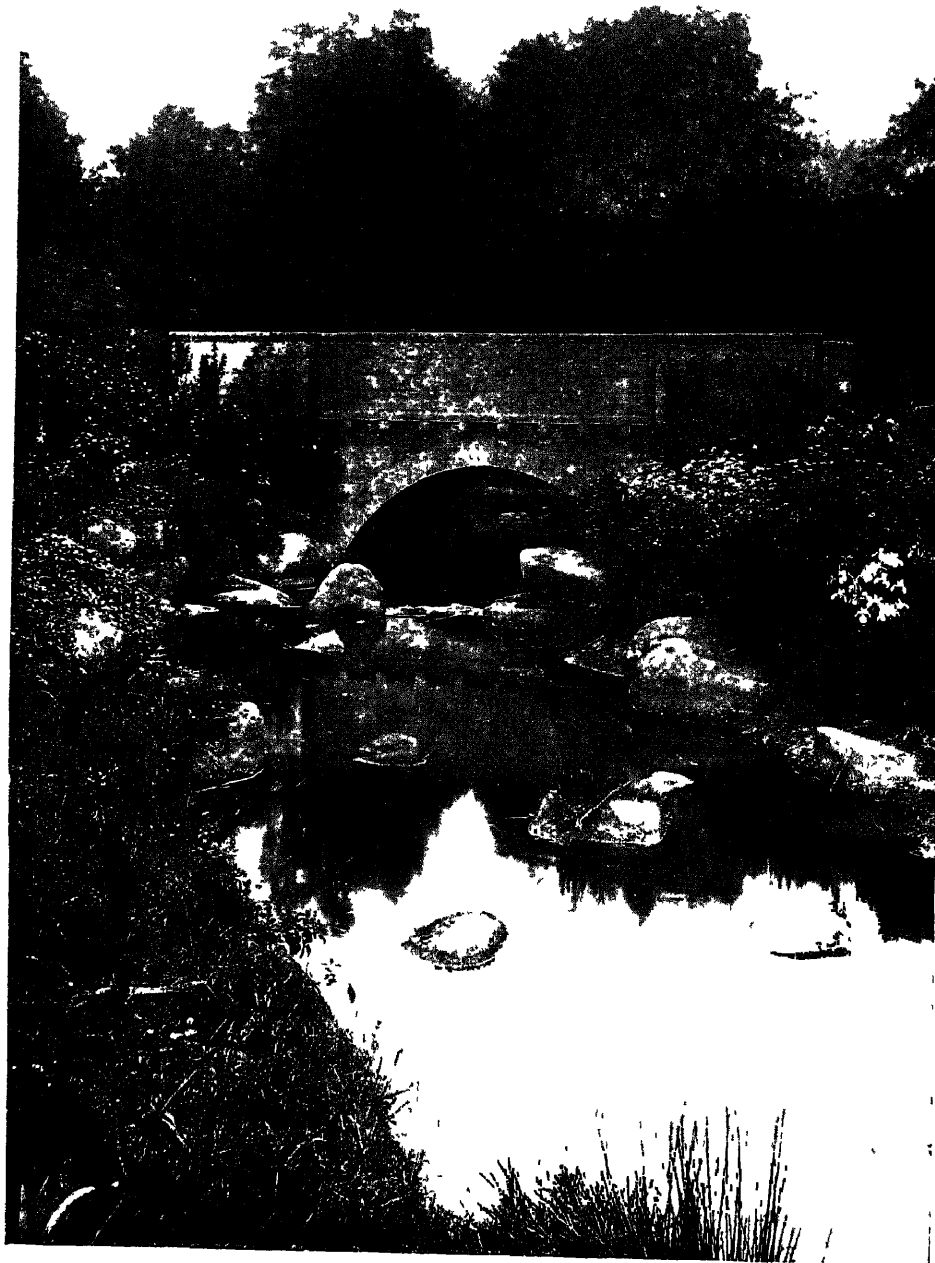


FIG 210 — BRIDGE IN DEVONSHIRE BUILT OF LOCAL GRANITE.

with roses or climbers, while the former has a strong continuous frame-work, often with the sides filled in with laced trellis, or wattles, according to the pleasure of the maker.

In a new garden, where shade is difficult to obtain, a pergola is invaluable, as it can be quickly covered with foliage and flowers, and so prove very useful until the planted trees have grown. Where the views are not to be obstructed, a roof of greenery supported on pillars would be sufficient, but where privacy is desired, one or both sides would be filled in with trellis. Where the pergola skirts the end or side of a tennis lawn, and is to be used as a shady retreat for tea, the side remote from the lawn would be filled in for shelter from the wind and the other side left open, with or without a handrail. A pergola can be used with a particularly happy effect where it can be built over a path dividing two distinct portions of the grounds which it is desired to screen

*Bridges  
over public  
ways.*

*Pergolas.*



from each other. In this case it performs all the functions of both pergola and fence. There is almost unlimited scope for originality in the planning and designs of pergolas, for not only may they be of almost any size and many shapes to suit varying circumstances, but also may be made in many materials either plain or elaborate. They may range from the graceful and elaborate French *trellisage* for the interior of the conservatory, to the simple erection of unpeeled larch poles for distant pergolas.

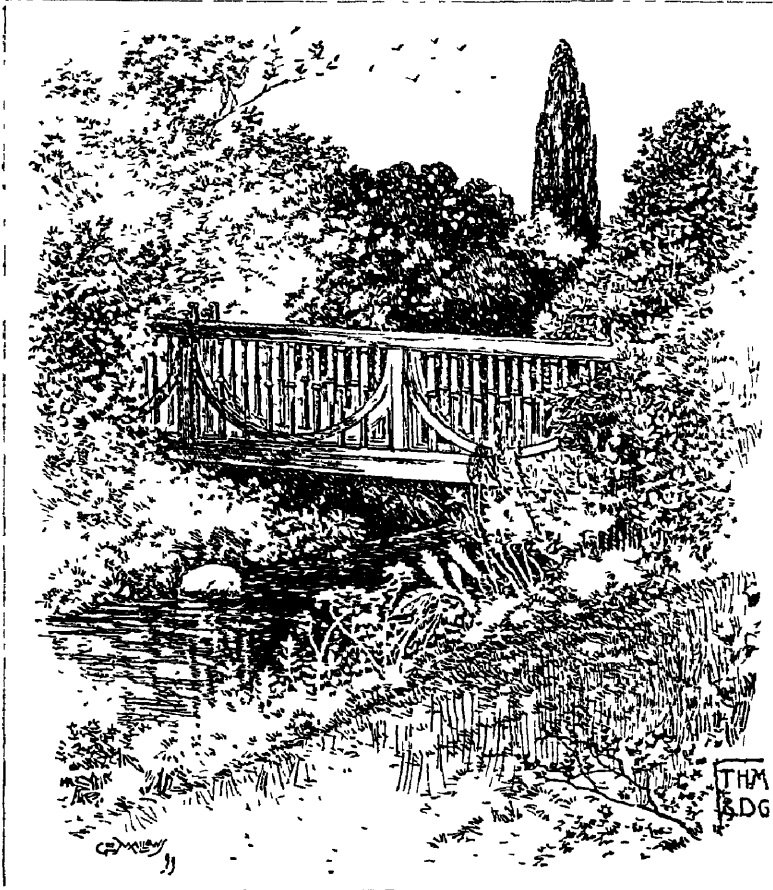


FIG 211 —WOODEN BRIDGE AT GRAYTHWAITE HALL

fountain or statue in the centre, a delightfully cloistered effect is obtained. This is an

Illustration No 459 shows a somewhat elaborate example with stone pillars and balustrade of renaissance design, and a superstructure of oak, the roof being arranged in domed form, at the angles where the pergola broadens out into arbours. It is to form a shelter from the wind and also a screen from the public gazers on Hampstead Heath, the ground being elevated some fifteen feet above the Heath. Such an arrangement will often be useful on the principal terrace, next to the house, where it is not advisable to have a verandah.

Where a pergola is carried round the four sides of a formal garden, with a

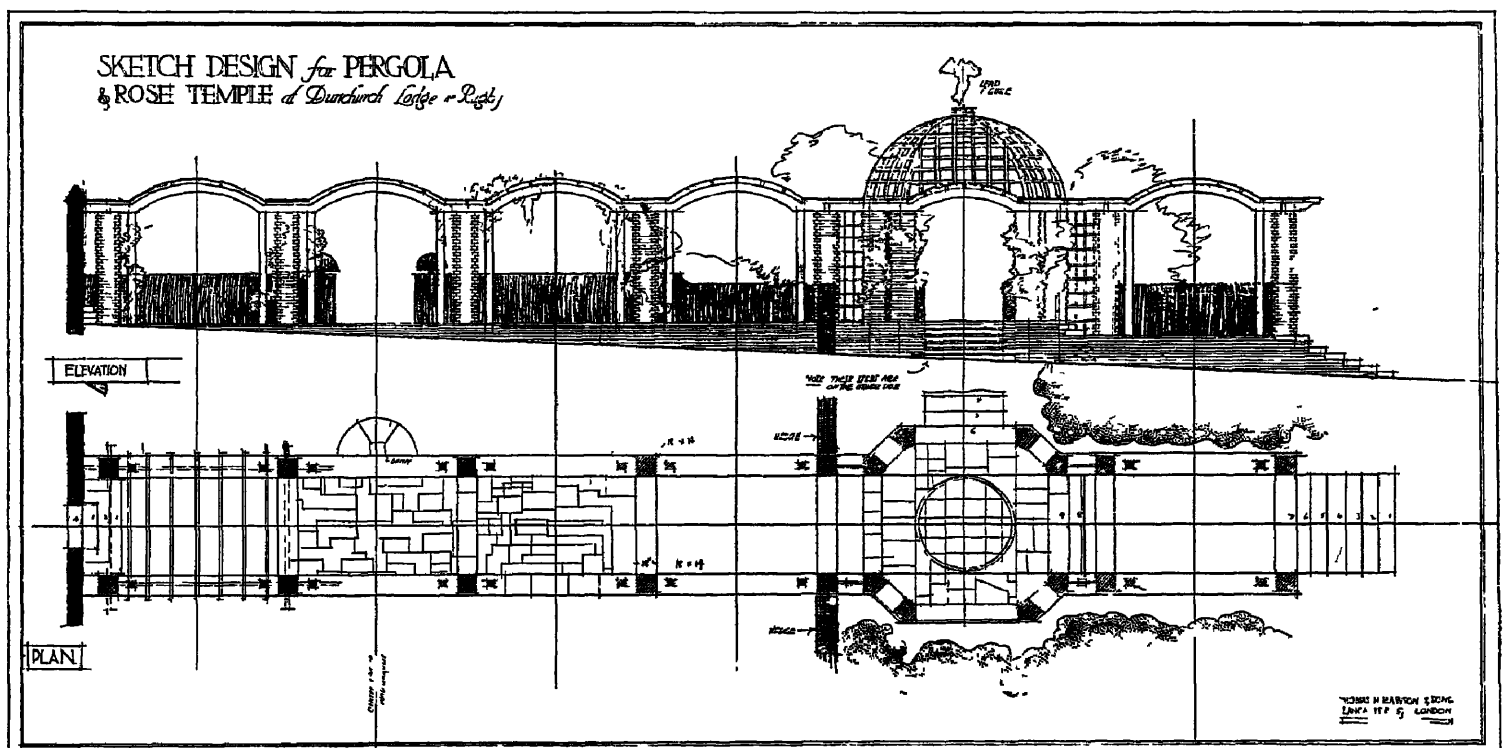


FIG 212.

arrangement suitable for gardens amidst unlovely surroundings, such as those in manufacturing districts.

For less prominent positions, the pillars may be built of brick or stone, as shown in Illus. Nos. 203, 212 and 215; or the rough monolithic columns used in Italy for



SUMMER-HOUSES, PERGOLAS AND BRIDGES

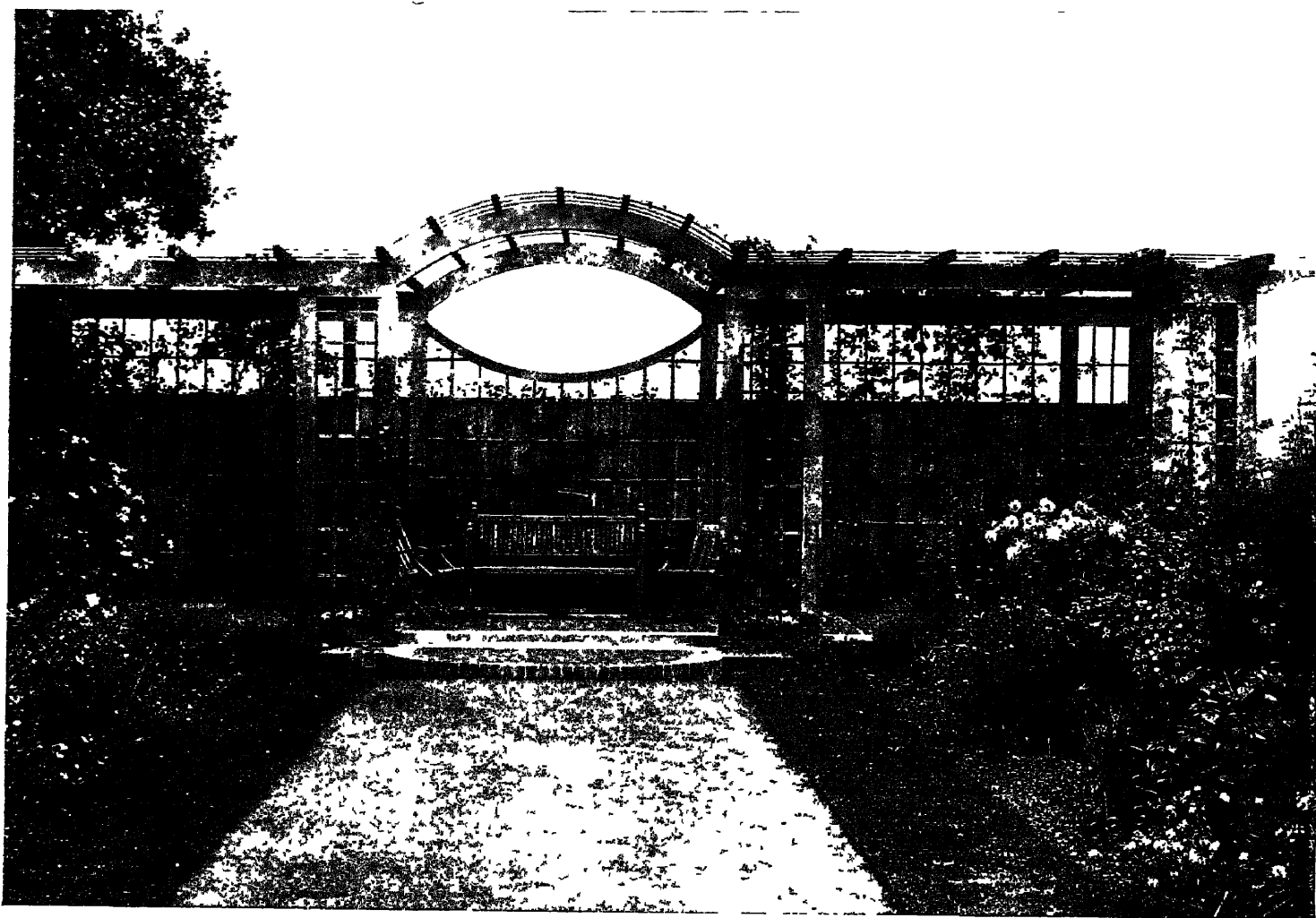


FIG 213 —PERGOLA ENTIRELY OF WOOD

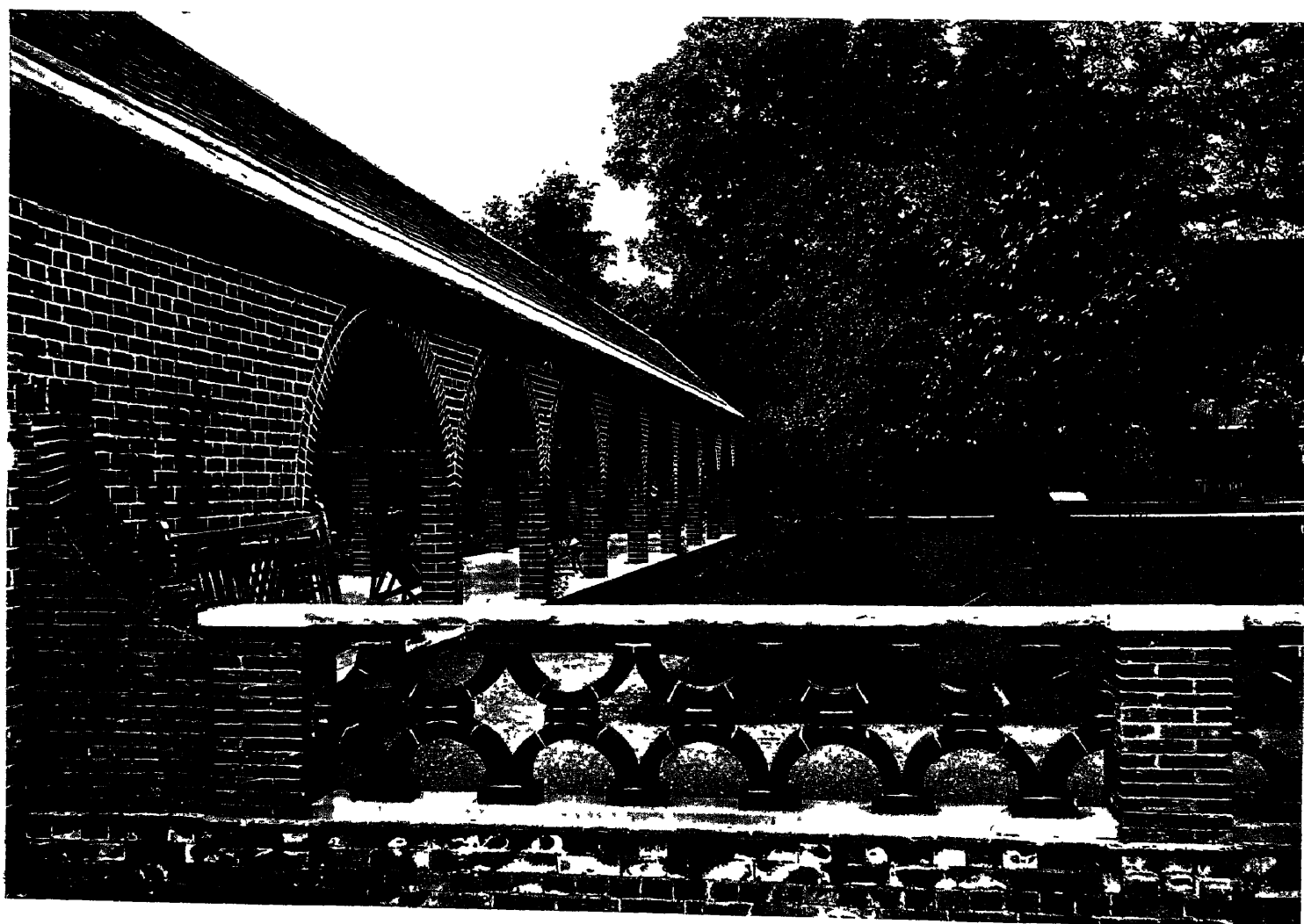


FIG. 214 —COVERED WAY BETWEEN HOUSE AND PARK AT GREENWOODS, STOCK

the grape vine pergolas may be employed. Where a lighter structure is desired, the whole erection, including the posts, may be in wood, as in illustration No. 213. The extent to which local materials may be utilized is shown in illustration No. 453, where the pillars are built up of small pieces of Westmorland slate. Although intertwined rustic work of many contortions is out of place, good pergolas for the outlying portions of the grounds or a cottage path may be made of unpeeled larch poles, which allow of sound construction, and breadth. The poles may be peeled and left so, peeled poles have the advantage of not harbouring insects.

Rustic pergolas are about eight feet wide and the same height, the strong upright posts being about six feet apart. Bearers parallel to the path are nailed to the tops of the posts and cross bearers to span the walk are laid

on them, projecting at both ends about eighteen inches. Climbers are then planted against the posts, and the intervening spaces left open until the plants have grown to a sufficient size to be trained over the trellis which is subsequently placed between the posts. If this trellis is inserted when the pergola is first made, it will create an impression of a forest of naked timber.

The danger to guard against in the formation of such pergolas is flimsiness. To avoid this, place the posts in pairs about a foot apart. Illustration No. 216 shows this arrangement and will provide suggestions for adaptation to many varying circumstances.

Pergolas need not always be of the long-drawn form which they usually take along paths. A square one may be requisitioned for the terrace wherein meals may be served in favourable weather, or a semi-circular one to embower a seat of the same shape, or may be circular or segmental as in the illustration heading this chapter.

Where a dry path at all seasons is required to connect the house with a garden house or smoke room, or to provide a short covered way from the highway to the front entrance, the best plan is to dispense with the pergola and roof it in. Such an arrangement is preferable to a pergola. In other situations, instead of the series of brick arches, quaintly strutted oak posts could support a pantile roof,

*Rustic Pergolas.*



FIG 215.—PERGOLA PILLARS OF ROUGH MASONRY.

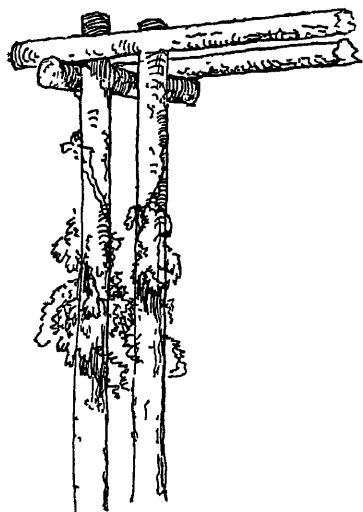


FIG 216

*Covered ways.*

## SUMMER-HOUSES, PERGOLAS AND BRIDGES

or in stone districts, stone piers and lintels with a slate roof may be used, or rough-casted arches where the house accords.

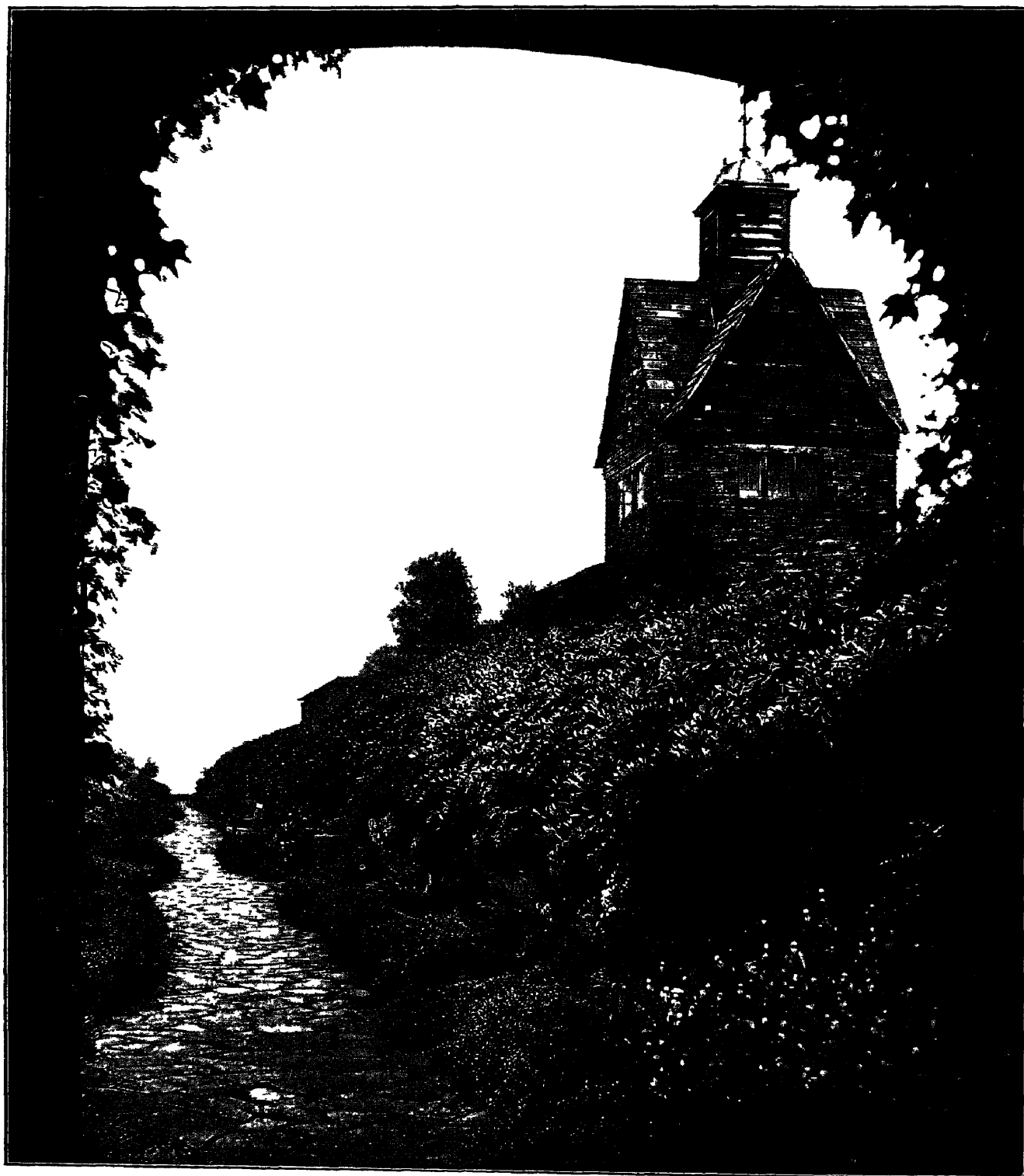


FIG. 217 —DOVECOTE AT ROYNTON COTTAGE FOR LORD LEVERHULME



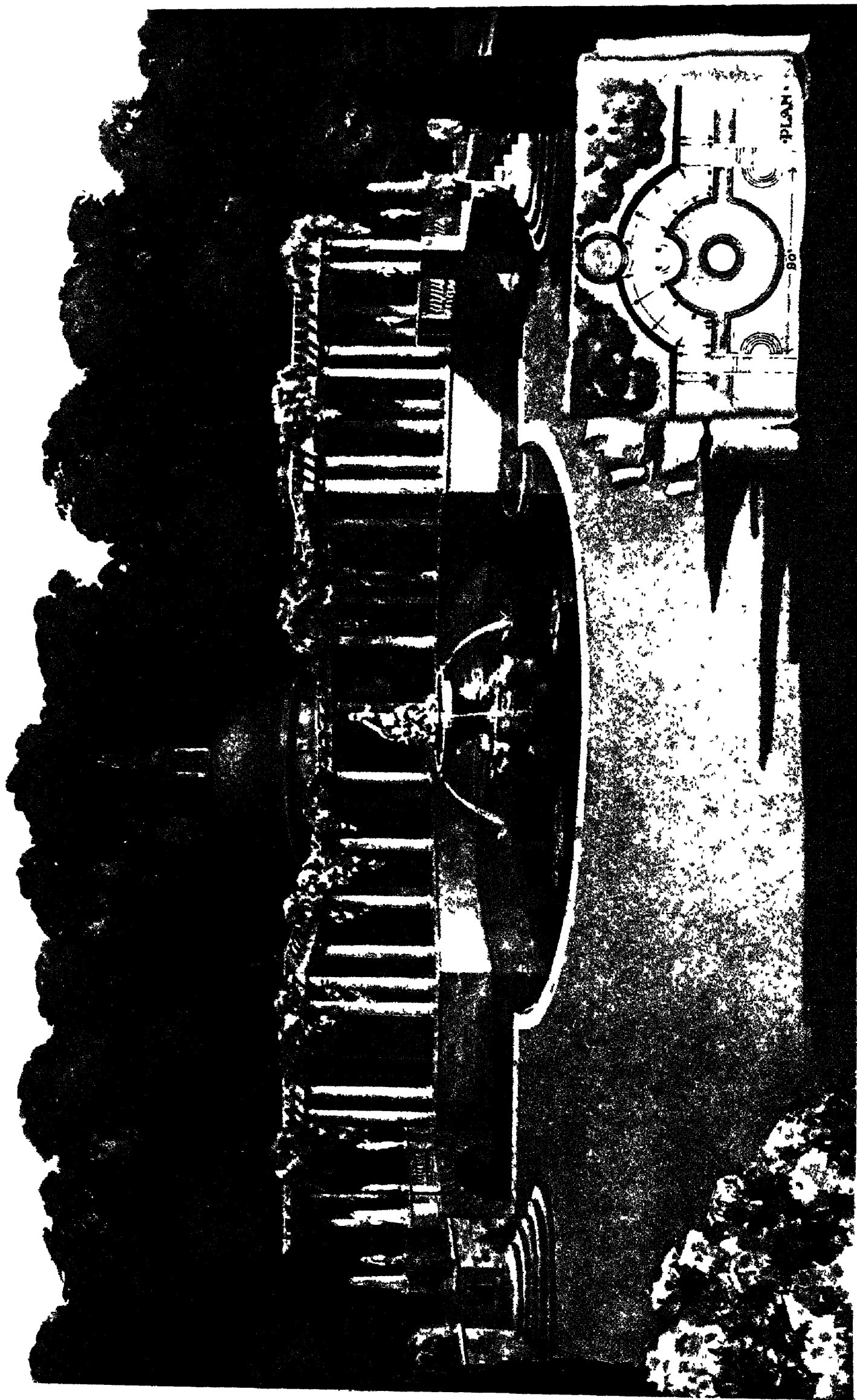
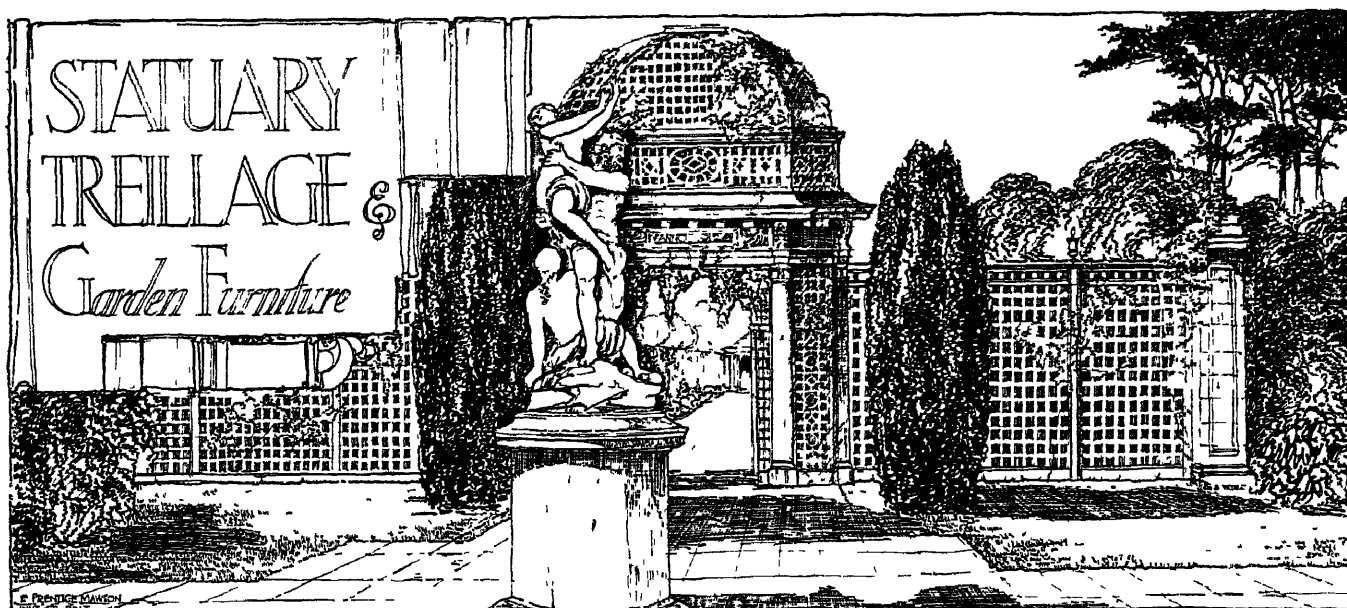


FIG 218—PROPOSED FOUNTAIN-POND, PERGOJA AND TEMPLE, SHENSIONI COURI,



## CHAPTER XI

In the last chapter the four principal architectural accessories of the garden were described, and in this the smaller and more portable constructions are dealt with, which is practically a continuation of the same subject

Speaking generally, garden furniture of every description suffers in repute from the indiscriminate manner in which it has been used. In many, one might almost say, in most gardens, such features as statuary, vases and seats, are dotted about with little regard to their surroundings, and are absurdly out of place. Considered as units in the design they ought to fit into their unique place and to grace that one only.

Statuary, when well chosen and happily placed with due regard to scale, supplies that touch of the exquisite needed to transport the mind from the hard materialistic common literal facts of daily life, which it is our object to escape from in the garden, to the ideal. The function of statuary of the right kind is to give verisimilitude to the imaginative. Everyone knows how the children gaze upon the statue of Peter Pan in Kensington Gardens, and inspired by J. M. Barrie's book it leads them to the jumping-off place from the tangible and real to enter into imaginative companionship with Peter amidst the trees and along by the ponds peopled by fairies and gnomes. This is garden statuary when it fulfils its highest function. Take another instance: ensnared with the peace and the delightful seclusion we wander down an umbrageous grass glade. The springy turf under our feet, the sunshine, the birds, the flowers, all join in the transcendent harmony of the soul and lead it into the region where, peering out from under a leafy canopy, we discern a statue of Pan with his reed pipes. The spell is complete. At any moment we expect the god to stamp his cloven foot and the glade to swarm with satyrs and nymphs dancing to the strains of his music. It may be used purely as design because of its beauty of line and form to grace some choice position, and in this case, if well chosen, it is appropriate.

*Misuse of garden ornaments.*

Poor plaster casts from the antique or conventional figures in glaring white marble are totally unsuited for garden decoration, for, apart from questions of subject and treatment, their insistent white silhouettes cause over-emphasis of the point they are supposed to adorn. This does not mean that statuary in other materials, such as lead or bronze, which tones and harmonizes with the foliage, rightly placed and in keeping with their setting both as to scale and sentiment, may not be used with happy results.

*Statuary.*

Severe restraint is, however, more necessary in the introduction of statuary, because it represents the last and culminating point in the composition beyond which there is no further emphasis. In music, the sudden crash of sound, in pictorial art, the most

STATUARY, TREILLAGE AND GARDEN FURNITURE



FIG. 219.

GARDEN STATUARY



FIG. 220.



FIG. 221.—PALAIS ROYAL, BRUSSELS, SHOWING THE EFFECTIVE USE OF ACROLITHS.

## STATUARY, TREILLAGE AND GARDEN FURNITURE.

vivid contrasts of tone and colour, in rhetoric, the highly figurative hyperbole, must be used but rarely and with caution, because they represent the exhaustion of the full range of the powers of expression, and so, in the employment of statuary which takes much the same position in our own art, restraint and reserve are equally necessary, and the highest point must be touched but seldom with the consummate skill of a master.

It is evident that the subject matter of a statue goes far to determining its suitability or otherwise for a place in the garden, but this does not mean that we must fill

our pleasaunces with representations of Ceres, or our woodland glades with Dianas. Quaint shepherds and shepherdesses, such as those shown in illustrations Nos 222 and 223, will strike a rural note more acceptable to modern minds, while, if a more classical subject is desired, cupids, dryads, satyrs and fauns allow of almost endless scope for taste and discrimination in their posing, placing and application. Illustration No. 220 shows a little lead statue of Cupid which was modelled for me some years ago, and I have had reproduced several times effectively. It has that special quality which is the mark of the best work, that, instead of palling through familiarity, it seems to grow upon one the more one sees it.

There is another way in which this form of garden ornament may be used. This is in what may be called "applied sculpture," an instance of which is the boy and dolphin fountain shown as tailpiece to chapter XXI. Fountains invite this type of decoration probably more than any other form of gar-



FIG 222



FIG 223.

*Applied  
sculpture.*

den equipment, but observation of existing examples shows the necessity for caution in its choice and arrangement, so that none but the best obtainable is used.

This strong insistence on the assertion that no statuary but that which is really good be included in the garden, does not mean that it must be excluded from the domain of the man of moderate means. Old lead figures of real merit may occasionally be picked up at moderate prices. Where the choice has to be made, I strongly advise the acquisition of a good copy of a well-known subject, even though it lack the quality of uniqueness, in preference to an original conception of second-rate merit. The boy and dolphin from the Uffizi, Mercier's David and Goliath, the well-known Greek Slave, and the half-dozen specially good Cupids which it is possible to obtain, can never pall, and though often repeated, are to be preferred to the uninspiring original creations of the monumental mason.



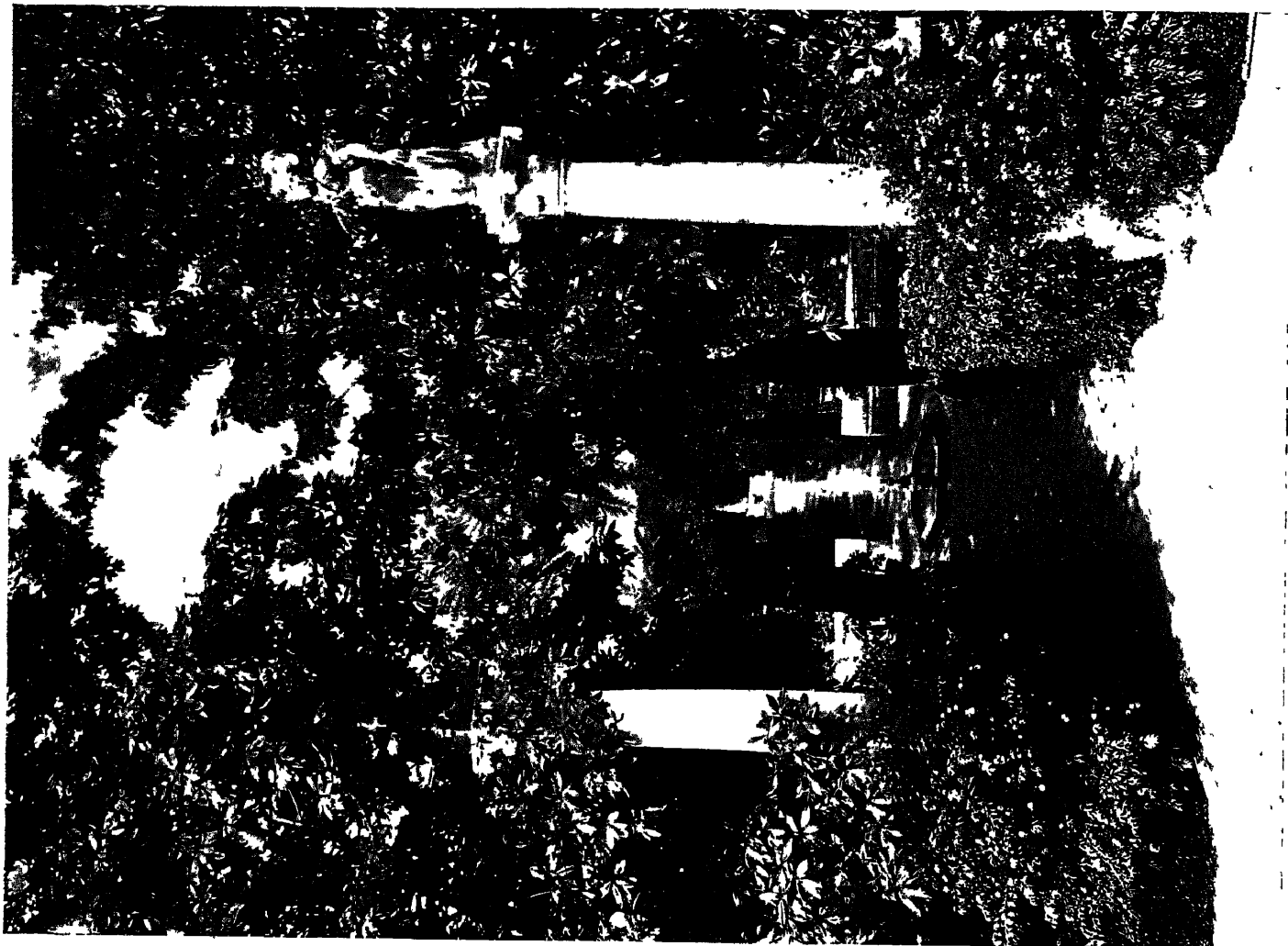


FIG. 225.—DETACHED COLUMNS IN THE GARDENS OF MARIE OF  
PADILLOA, SEVILLE

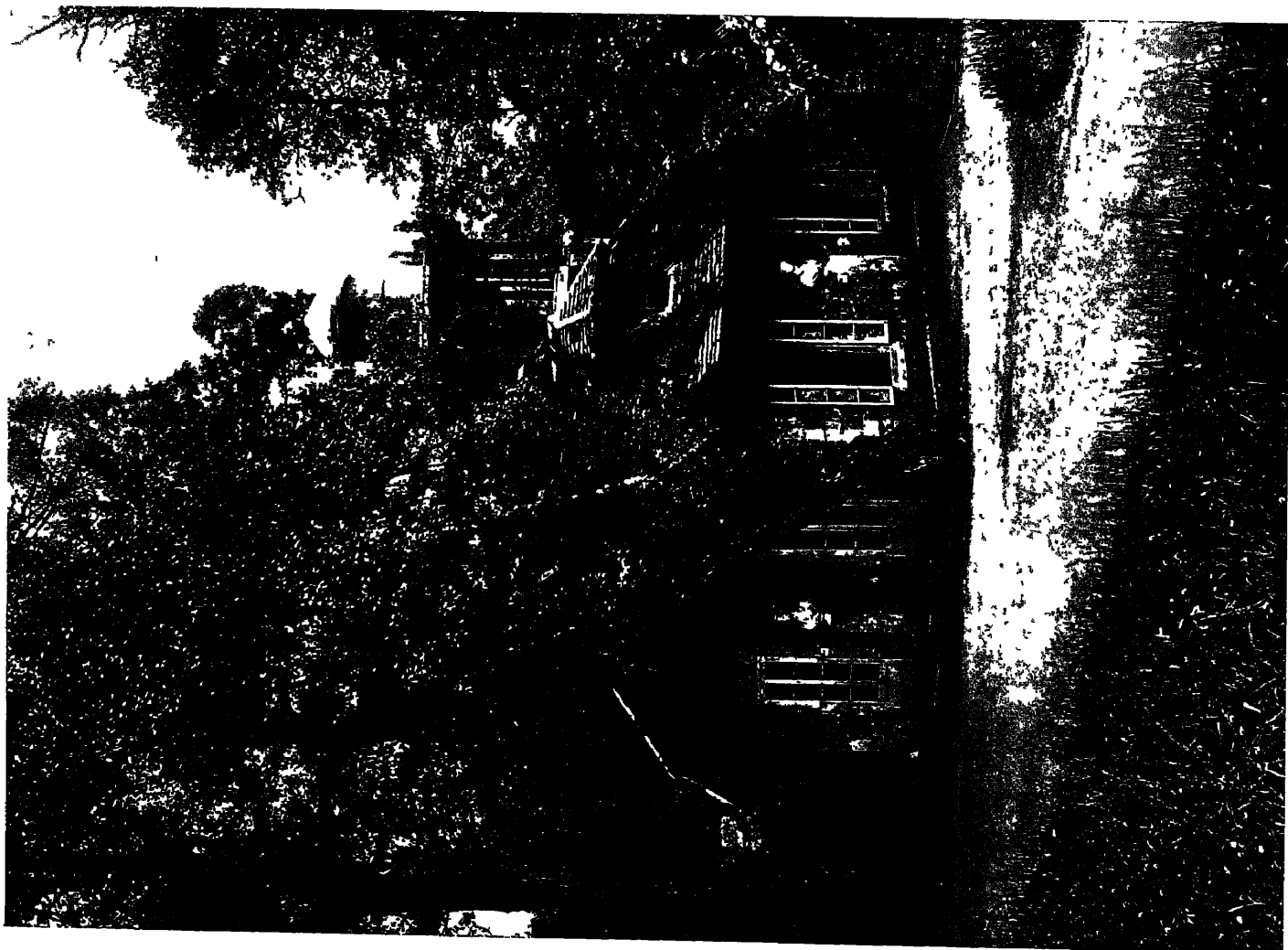


FIG. 224.—THE EFFECTIVE PLACING OF STATUARY.

Subjects from Greek and Roman mythology need some adaptation to their surroundings if they are to be successful, but there is one feature of classical ornament which seems to adopt itself perfectly without the slightest rearrangement. This is the acrolith, which from its nature is only suitable for use in gardens laid out on formal lines, and usually in conjunction with clipped hedges where it can be used to divide the hedge into bays, or mark the position of an opening, as in illustration No. 226. It may also be used, however, to emphasize the termination of an avenue or glade, as in the view I give of the Palais Royal at Brussels (Ill. No. 221), while illustration No. 224 shows how a pair of these features have been placed so as to break up a plain wall surface and give character and finish to an architectural composition. Illustration No. 227 is a modern adaptation of the same idea

Detached columns of traditional classic design often, but not always, surmounted with statuettes or graceful lead urns may be used for the same purpose, as shown in illustration No. 225, which is an instance I came across in a garden at Seville, or one may be placed in the centre of a formal garden to be smothered in rampant roses or clematis. Readers familiar with the Parc Monceau, Paris, will also remember what a charming effect may be obtained with a classic colonnade in conjunction with free foliage and water. Sometimes, too, a single column may support a cubical block of stone, three faces of which might have vertical sundials (Ill. No. 390).

The sundial is a feature which allows variety, and there are examples of quaintly conceived pedestals supporting a polyhedral block of stone bearing literally dozens of dials on its various facets, each one having its own particular markings carefully calculated in accordance with its placing in relation to the path of the sun. Such arrangements, however, and also the huge topiary sundial at Broughton Castle, partake of the nature of curiosities or freaks, which, however quaint the original examples may be, cannot be repeated indefinitely. The aim should be in this as in every other garden feature, to combine use with beauty and grace of form, and clothe the whole with that sentiment which belongs naturally to the subject, and which has come down to us with an unbroken record of usefulness from the dark ages.

Unlike some other antiques, the sundial will not usually bear removal from its



FIG. 226.—ACROLITHS AT EITHER SIDE OF  
OPENING IN A NEWLY-FORMED HEDGE.

*Acroliths.*

*Detached  
columns.*

*Sundials.*

## STATUARY, TREILLAGE AND GARDEN FURNITURE.

original surroundings without losing the whole of its old-world charm and becoming more or less commonplace, and it is usually therefore much better to design one to fit its surroundings than to purchase one of the old examples. Again, as every position requires a specially designed dial, and every degree of latitude a differently shaped gnomon, once a sundial is removed, it cannot be relied upon to register correct time.

In passing it may be explained that the time told by the sundial is *Solar time*, which varies slightly according to the seasons, and not the *mean* time to which we are accustomed. There is also this difference, that whereas we use Greenwich time throughout Great Britain, and eastern Europe, each place east or west of Greenwich has, of course, its own meridian and its own time, which is registered by the dial. This difference is easily found by reckoning four minutes for every degree of longitude separating the site of the sundial from Greenwich. This gives us Greenwich solar time, and, to discover Greenwich mean time, which is what our watches show, it is necessary to consult a special calendar which shows the difference for each day in the year between the two systems, or the calendar may be so arranged as to translate local solar time directly into that shown by ordinary clocks and watches. In most of the better dials, this calendar is engraved on the plate itself, and, in vertical dials placed on the sides of a block of stone, such as that in illustration No. 390.

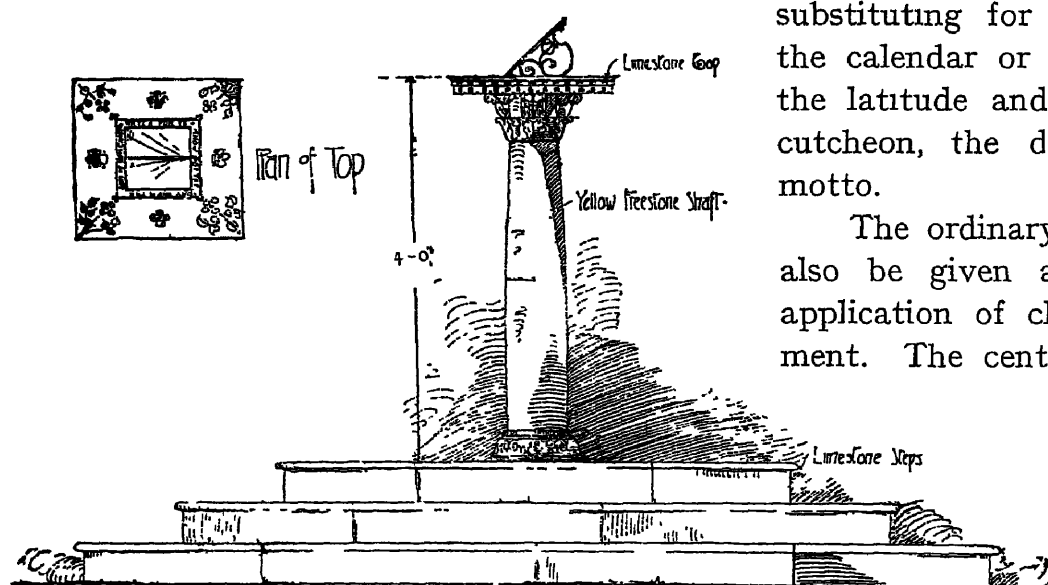


FIG 228 —DESIGN FOR A SUNDIAL

plate accompanying illustration No. 228.

A mechanical sundial has recently been introduced, which, by projecting a spot of light on to a mark, shows Greenwich mean time most accurately to at least half a minute, but, like many other modern improvements, it has none of the charm and



FIG. 227.—ACROLITH IN THE FORMAL GARDEN, BROCKENHURST.

The dial which faces north, may be omitted, substituting for it a plate engraved with the calendar or other information such as the latitude and longitude, the family escutcheon, the date, or a quaint sundial motto.

The ordinary horizontal dial plate may also be given additional interest by the application of chaste and restrained ornament. The centre being occupied with the dial markings, there remain the margins and corners, which may be treated with chased ornament or bas-reliefs in the manner indicated on the sketch of the



FIG 229.—SUNDIAL AT WALMER PLACE FOR ALBERT OCHS, ESQ



FIG. 230.—SUNDIAL AT HARTPURY HOUSE, GLOUCESTER, FOR MRS. GORDON-CANNING

## STATUARY, TREILLAGE AND GARDEN FURNITURE.

æsthetic interest which clings around the old form of dial. It may be used with advantage on the principal terrace opposite and close to the garden entrance to the house for practical purposes, but, in parts of the pleasure, the older form, with its graceful gnomon and quaint motto is preferable.

Illustrations Nos. 228, 229 and pedestals which would suit most emphasis to the central point in a to close a vista, a taller arrangement more suitable. Vertical sundials for garden houses or for fruit wall or over the garden aspects.

*Vases and urns.*

Before turning to the con- niture, vases and urns of stone, The great fault in most vases is dation for soil. The best of all strongly-made wooden soil box to the worst of the tree or which it may be forwinter without

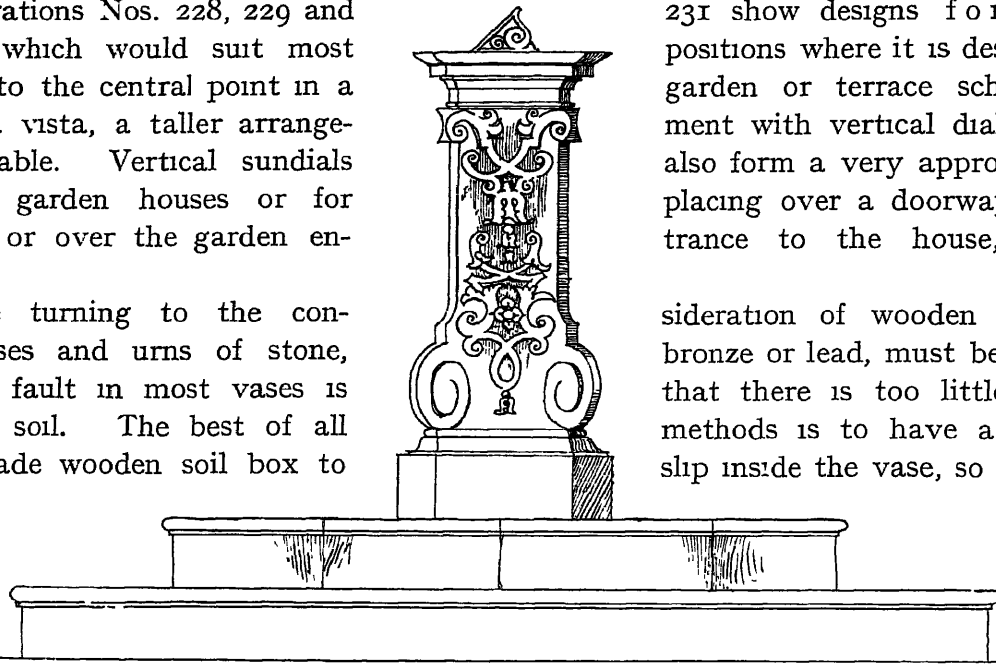


FIG. 231 —SUNDIAL SHOWING A DUTCH INFLUENCE IN ITS DESIGN

months year, the plants contains removed shelter disturbing ing the heavy outer casing. Illustration No. 232 shows a square form of vase which I specially designed to meet these practical requirements, and which has been executed in terra-cotta with a surface closely resembling a smooth-grained sandstone. As stated elsewhere, other kinds of terra-cotta, especially glazed ones, are to be avoided in the garden, but where a form of this material can be obtained which is æsthetically presentable, it is better for vases than stone, because the sides and bottom may be made thinner, thus allowing for more soil. The design might be executed very effectively in lead, but there are so many old lead cisterns of quaint workmanship to be obtained which will answer the purpose (Ill. Nos. 233 and 234), that it is hardly necessary to make one specially unless circumstances demand a given size and shape, or a number of similar pattern are required, as when they are to be placed at regular intervals along a terrace walk, or instead of finials to the balustrade.

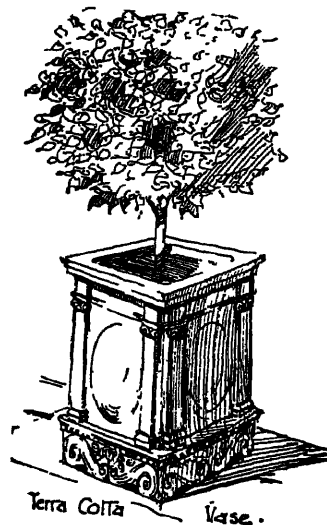


FIG. 232

Lead or stone urns, such as those made by the Bromsgrove Guild shown in illustrations Nos 235 and 236, are eminently adapted for the latter purpose, but in choosing these, care should be taken that nothing is introduced into the garden which suggests either a cinerary urn or the one beloved of the monumental mason. Of these, again, and also the pineapple finial which fulfils much the same purpose, numbers are to be found which have been removed from old houses, and which are quite as good, if not

better, than modern ones, apart from the interest which their history may give them. In renaissance gardens they were often placed on stone bases, or used as finials to gate, pillars, or to mark the corners of the terrace walls

*Wooden garden furniture.*

Turning to wooden garden furniture, we are first of all confronted with the question —What is the best wood to employ? A long experience has convinced me that, apart

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from its sentimental advantages, oak is without a rival for garden purposes. Teak is very good, but it does not weather to such a nice colour, and being a foreign wood does not harmonize so well with its surroundings. Oak, when exposed to the weather,

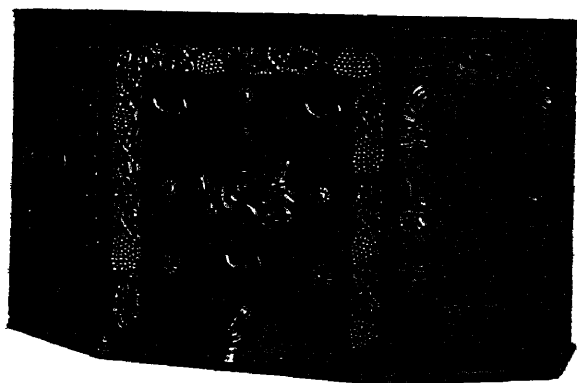


FIG 233.

LEAD CISTERNS

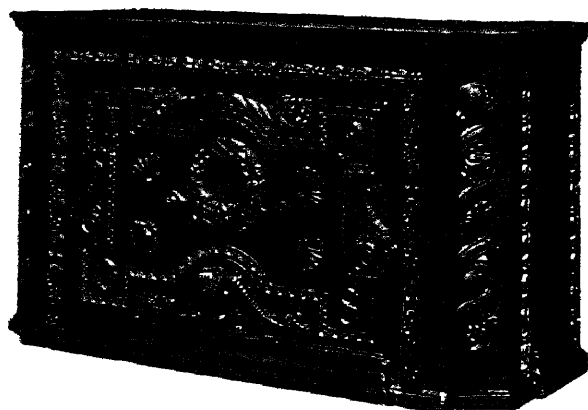


FIG. 234

turns a beautiful shade of silver-grey which is exactly complementary to the prevailing green of garden foliage, an advantage which other woods do not share. Obviously wood which requires painting is not satisfactory. There must be destruction more or less, of all

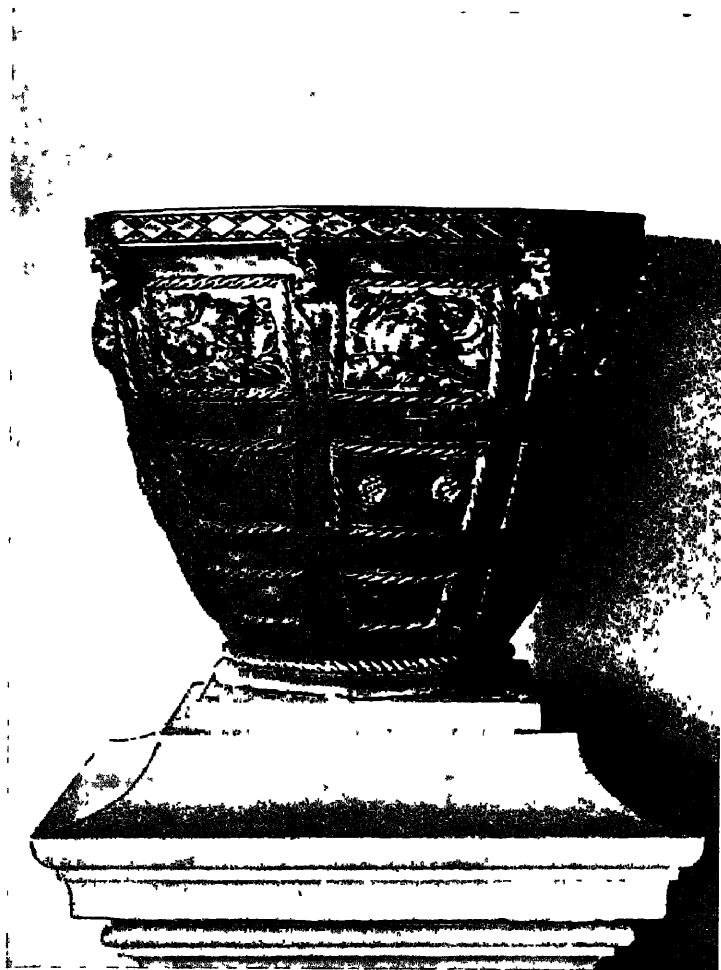


FIG. 235.

LEAD VASES.



FIG. 236.

climbers growing over the woodwork every time the paint is renewed, and more disastrous are preservative stains, such as Stockholm tar, the volatile emanations from them have a bad effect on climbers for months after application. The fact that oak, in large pieces, shakes when exposed to the weather, however well it is seasoned, need not be

## STATUARY, TREILLAGE AND GARDEN FURNITURE.

considered a detriment; it does not appreciably weaken the work, and gives it a rustic effect quite in harmony with its surroundings.

*Burying  
oak posts.*

Wherever oak posts are buried in the ground, they should be placed inside an ordinary glazed drain-pipe and the space between the two be filled up with cement. The top of the pipe may be level with the surface of the ground, and the top of the cement be dressed so as to slope away from the post on all sides. Even thus it is

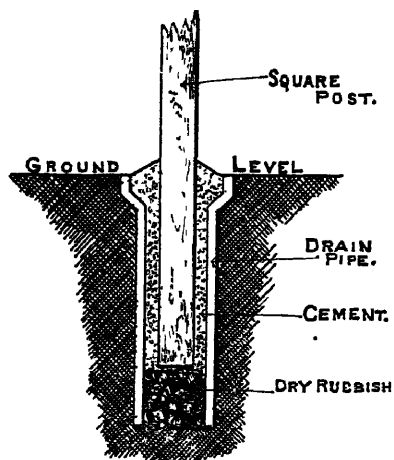


FIG 237.

impossible to obtain an absolutely watertight joint between the wood and the cement, for the latter shrinks somewhat in setting. Therefore to provide that the small amount of wet which finds its way between the two shall have a means of escape at the bottom, bury the lowest three inches of the post in dry material, such as clean gravel, or broken stone, and before filling in the cement, place a piece of felt on the dry stuff to support the cement, and so prevent it from mixing with the dry material until it has set (Ill No 237).

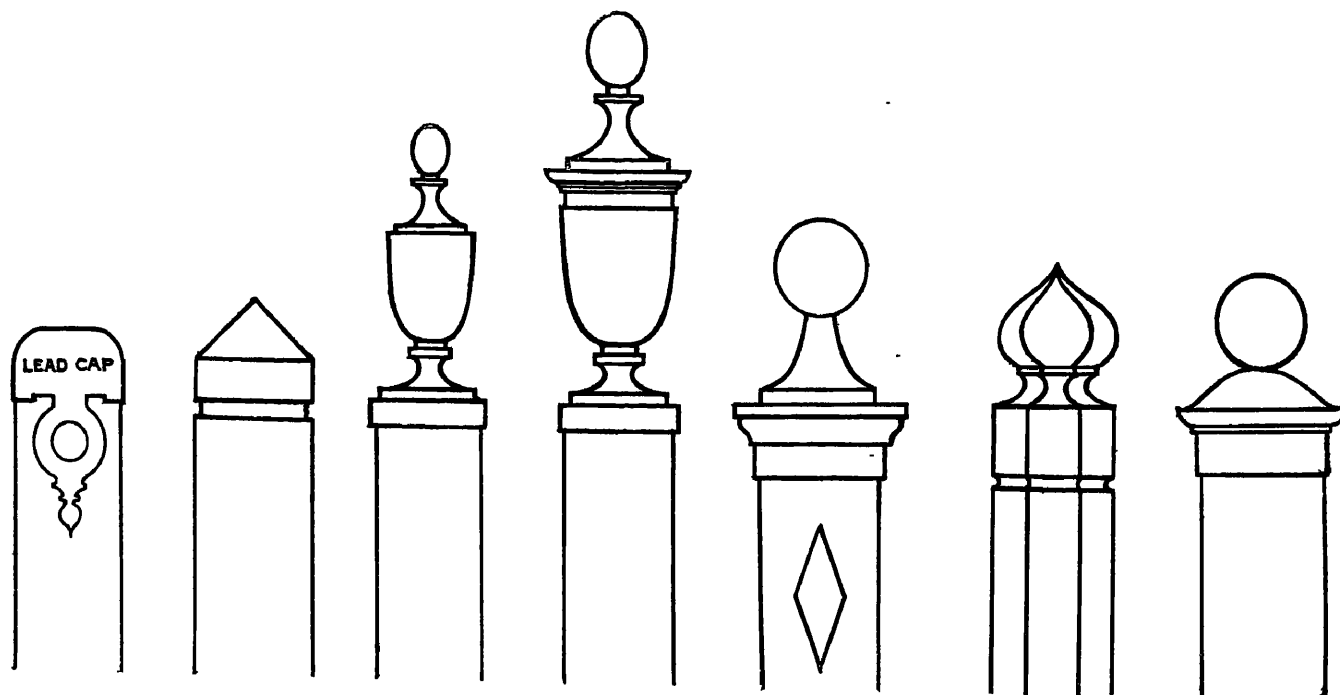
The upper ends of all posts where exposed to the weather should be protected with caps of wood or lead. These can be made to add very much to the appearance of the post, especially if the caps take the form of ball-finials or small

urns (Ill No 238).

These remarks on the choice and preservation of timber apply equally to all garden furniture wholly or partly constructed of wood; they are also applicable to trellis

*Trellis*

Mr. Belcher, in an able paper read before the Royal Institute of British Architects remarks concerning trellis as follows —“Wherever wood construction has been in vogue, varied treatment of ‘post-and-rail’ and ‘lattice work’ has been in use all the world over. India and Burmah, China and Japan, each has its characteristic treatment worked



FIG, 238.

out with wonderful elaboration and finish. The familiar Cairo lattice work is another variety of the same thing in the East, while every European country on which the sun shines has its own method of affording shade and shelter by trellis-work. It is the ease and facility with which daring experiments can be made which render it valuable. It can be altered and shifted at pleasure until the desired effect is obtained in a way solid and valuable material prohibits.”

“In the art of laying out a garden, as in architectural designs, there is a certain



FIG. 239.—TRELLIS SCREEN AT "THE HILL," HAMPSTEAD.



## STATUARY, TREILLAGE AND GARDEN FURNITURE.

seductive mystery gained by partly concealing and judiciously screening some parts from immediate view. By this means the imagination is tempted to conjecture the presence of hidden delights beyond, and interest is quickened in expectation of some further enchantment"

"Besides the fact that divisions of some kind are necessary for such surprises to the casual visitor, they have always the additional and permanent advantage of affording seclusion, quiet and comfort. The very flowers and shrubs enjoy the retreat, for in the shelter they luxuriate, and their sweet fragrance is not dispersed by rude winds. Tall hedges of yew, laurel, or holly form substantial divisions, but years must elapse before such hedges can be effective. And here the common or garden trellis will prove the temporary substitute. Against it the hedge can be planted, protected and trained. On the wood trellis, roses, clematis, jessamine and honeysuckle will climb readily, and show their preference for it over cold and uncongenial iron rods and chains of wire."

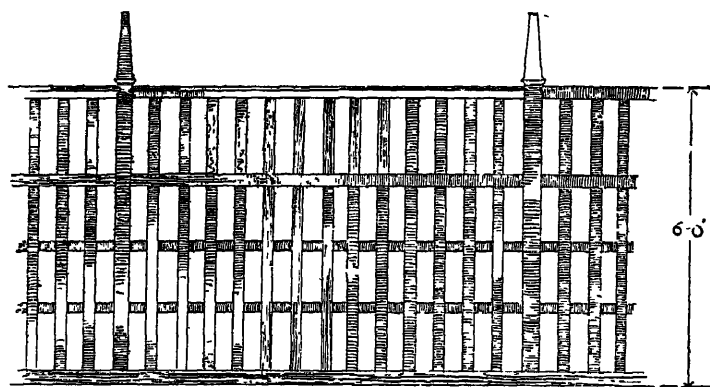


FIG. 240

"With the flexible laths, deep archways can be formed in the trellis division

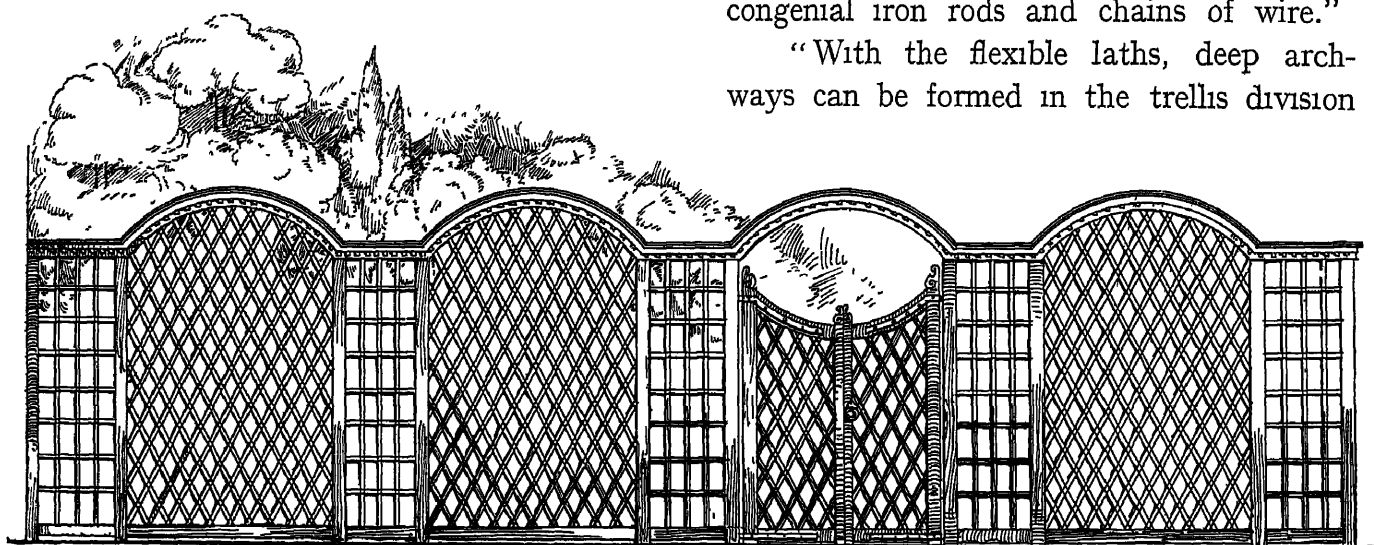


FIG. 241.

just long enough to form a dark frame to the picture beyond. Or if a peep is required here and there, a few laths can be cut and a bent piece or hoop of wood, circular or oval, inserted, forming an unglazed window in the trellis or hedge. Should it be desirable that the upper part of a high screen, or parts of it, be more open or only partially hide

what is behind it, then the trellis can be cut into patterns more or less open as desired—sometimes in panels, sometimes in a running pattern."

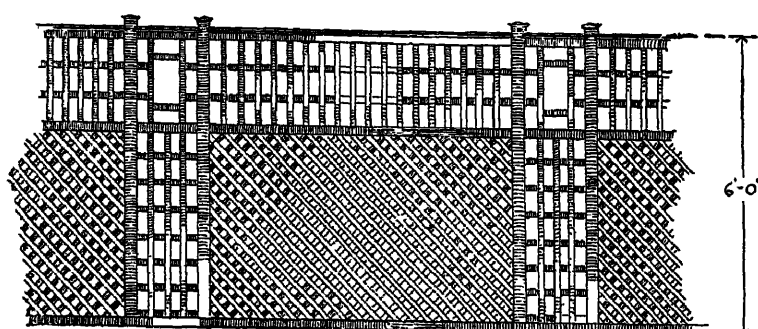


FIG. 242

*Design of  
trellis  
screens.*

does not prohibit the adoption of a design which shall be beautiful in itself, its beauty must be unassertive or it will compete with the flowers and foliage with which it is adorned. The accompanying illustrations (Nos. 239, 240, 241, 242, 243 and 244) show exactly what is meant and supply ideas for adaptation to different conditions. In every

In designing outdoor trellis, it is first of all necessary to remember that it is to form a background or framework on which to display growing things. While this

## STATUARY, TREILLAGE AND GARDEN FURNITURE.

case a sufficient number of both horizontal and vertical pieces must be provided throughout the design for the support of the climbers. Thus, any kind which extends over a considerable area, having only vertical bars, would in practice prove unsuitable.

The cheap expanding portable lattice, although poor and untidy as generally used, may make an exceedingly cheap and neat trellis when inserted in a strong framing of pitchpine, with stout posts and rails. It may also be combined with specially made lattice or with riven oak spads in a variety of ways, and is particularly useful, when

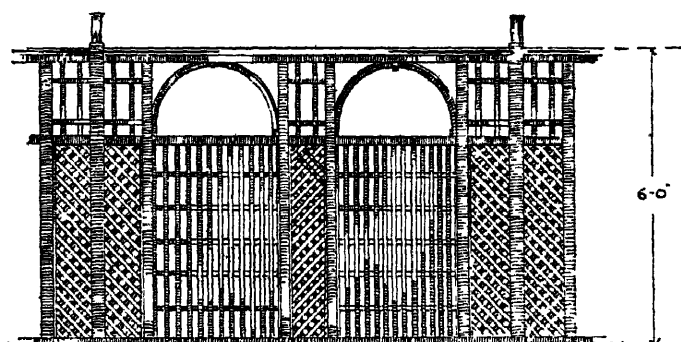


FIG 243

framed up thus, for cottage gardens, if finished with four coats of green paint of lasting quality.

Trellis, of whatever kind, must of course be firmly fixed together at every intersection of its members, not only to make it rigid and strong, but also to prevent warping. In the case of oak trellis this may be done either with wooden pins or copper brads. Iron nails

should never be used in oak, because they produce black stains. In square plain lattice, such as that which fills in the spaces between the pillars in the pergola shown in illustration No. 213, oak pins are effective and satisfactory.

The drawings for pergolas in this work show the effective application of this feature. Some of the garden plans illustrated denote the various uses it may serve, as, for instance, screening cropping grounds from the tennis lawn in the writer's own garden (Illustration No. 451).

Trellis for covering blank walls is generally best made in perfectly plain squares about nine inches between the laths both vertically and horizontally, and of course the framing may be lighter than when it has to stand alone. Unless it is made of oak, it ought to be so fixed as to be easily removable from the face of the wall, as far as may be without tearing the stems of the climbers, in order that it may be repainted at intervals, and, if the wall is distempered, as so many roughcasted walls are, this will be still more necessary as lime distemper is injurious to the foliage, and untidy when splashed on it.

*Trellis for covering blank walls.*

An opening in a trellis screen which spans a path always provides the opportunity for effect.

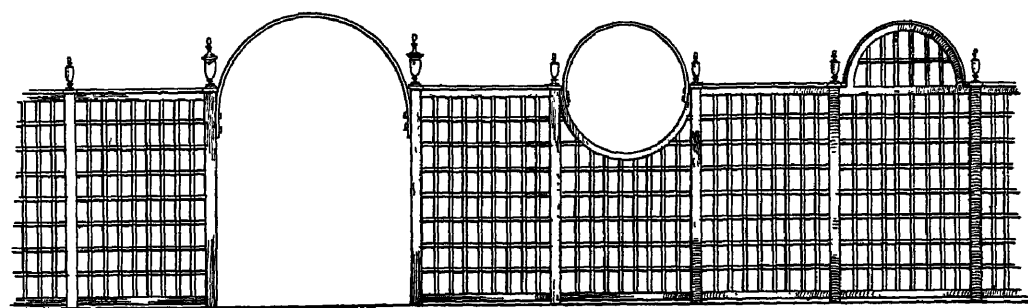


FIG 244.

*Openings in trellis screens.*

It is seldom that the screen itself is high enough to allow head room and therefore an arch has to be formed over the path. The central part of the pergola in illustration No. 460 will show how this may be done in wood, while the rose arch in illustration No. 244 indicates how an iron arch may be contrived with happy effects.

Rose arches may stand alone, and if a series of them cross a straight path at intervals of eight or ten feet, we have a reproduction of the old-fashioned rose bower. The iron and wire arches so often seen are unsatisfactory, not only because they are flimsily-made and soon lose their shape, but also from the fact that, iron being a rapid conductor of heat, roses and other climbers are checked in their growth by its coldness. Such an arch as that shown in illustration No. 245, although formed partly of iron, is

*Rose arches.*

## STATUARY, TREILLAGE AND GARDEN FURNITURE.

not open to this objection, for, by the time the roses reach the iron archbars, they are robust, and are only slightly affected. Illustration No. 246 shows a simpler arrangement constructed entirely of unpeeled larch.

Illustration No. 248 shows another way in which arches of this kind may be used to form a screen instead of trellis. In this case they are placed continuously instead of one behind the other, and probably a better method still would be to place them further apart and hang light chains between them whereupon to train the climbers

Rose  
screens.

A similar fence can be contrived by simply erecting posts at intervals of say ten feet, and hanging chains between them, the whole being clothed as densely as possible with climbing roses, honeysuckle or clematis. To prevent the chains swinging and tearing the climbers, fix the centre of each swag to a stake driven into the ground. A variation of this arrangement, which will suggest many others, may be obtained by erecting a low trellis fence about three feet high and carrying the posts up a further four feet and suspending chains between them, the centre of the chain being attached to the top rail of the fence.

Such screen fences of trellis, arches or rose festoons need not necessarily be in straight lengths. In the chapter on Kitchen Gardens we have shown how effectively they may be used in a circle round the dipping well, backed with seats and arches over the pathways approaching the well head. They may also be used in a semi-circle to give an apsidal recess round a semi-circular seat. Other cases occur, such as a semi-circular arrangement of flower beds at opposite ends of a lawn, which will need the shelter of a curved fence of trellis work.

Trellage.

Traditional French *treillage*, which is a highly elaborated form of trellis work for interior decoration, has been mentioned in connection with conservatories, where it is generally used. It is too highly decorative for general use in the garden, but its simpler forms may sometimes be employed effectively in relieving the bare walls of the courtyard to a town residence when they are viewed from the principal windows. The ornament must however be severely restrained, and the scrolls, perspective panels and rococo work which characterise the original examples should be omitted as too flamboyant for use out-of-doors in the English climate. As in all the other trellis illustrated, the effect is sought rather in the disposition of the parts and the spacing of the laths than in super-added adornment. Such trellis could only be graced by the lighter climbers, which would not mass and obscure the design or strain the thin and delicate laths. To prevent a bare effect, trees in tubs might be placed at intervals, varieties which bear a profusion of brilliantly coloured flowers, and which have a long flowering season being chosen in the case of a town garden.



FIG. 245 — ROSE ARCHES OF IRON WITH OAK POSTS.

Such tubs, of which designs are given in illustrations Nos. 249, 250 and 251, are essential to the success of the small courtyards in town gardens where bright colouring at all seasons is desired, and there is no room for plants which are not actually in flower. The vases previously described are indispensable, but they cannot be included in great numbers without over-elaboration, so that, although they punctuate particular points in the design, the smaller portable tubs are also required. Filled with sweet bays, mop-headed or pyramidal in shape, they are particularly useful, while, in the town courtyard, a screen of greenery may be contrived by placing a row of *Thuja Lobbii* or *Cupressus erecta viridis* in tubs as close together as possible, to form a hedge.

*Wooden  
tubs.*

It is on a paved terrace in front of a country house over-looking gardens and

lawns, however, that the tree-filled tub is most useful. Such a position is usually somewhat exposed to winds, and therefore the tub is far better than a soil bed contrived in the paving, as the tree can be removed in the winter. Tree-filled tubs may also be placed on the flat coping of a terrace wall to mark the sides of flights of steps, or at intervals to punctuate its length, and especially where stone finials would be too formal and obtrusive. For such positions a shallower tub is more desirable than when it stands inside the parapet.

Garden seats may be of wood, stone or iron. For eleven months of the year, iron and stone are too cold and comfortless, and even dangerous to the health, therefore wood is the only satisfactory material. Stone seats can be fitted with a removable wooden grating, as is often done in the case of seats on classic terraces.

*Seats.*

Within the last few years there has been a great improvement in the design of garden seats,



FIG 246—ROSE ARCHES OF LARCH WOOD

but many of them aim at copying the general lines of pre-Georgian examples without giving sufficient care to the relation and proportioning of parts. Most of the designs seem to lack definite purpose in their conception and execution, and in those given in illustrations numbered 252 to 255 inclusive, an attempt has been made to overcome this defect, and to give a seat of comfortable proportions without sacrificing grace of form. The usual length for such seats is six feet, but for special positions, from five feet to twelve feet may be necessary. Where, however, the length exceeds nine feet, an extra arm stretchers and bearers dividing it into two parts is desirable.

For woodland walks and outlying parts of the grounds, very simple designs are usually best. A very good form is that in which the back is made of solid boards and is hinged so as to close over the seat and keep it clean when not in use. Such a

## STATUARY, TREILLAGE AND GARDEN FURNITURE.

### *Seats.*

contrivance may, with care, be made quite neat and in keeping with its sylvan surroundings. Of iron seats, it may be said that most of the existing patterns are ugly, and not very comfortably proportioned. There is no reason why this should be so, and the writer has seen early examples in cast iron which were pleasing. It is the modern

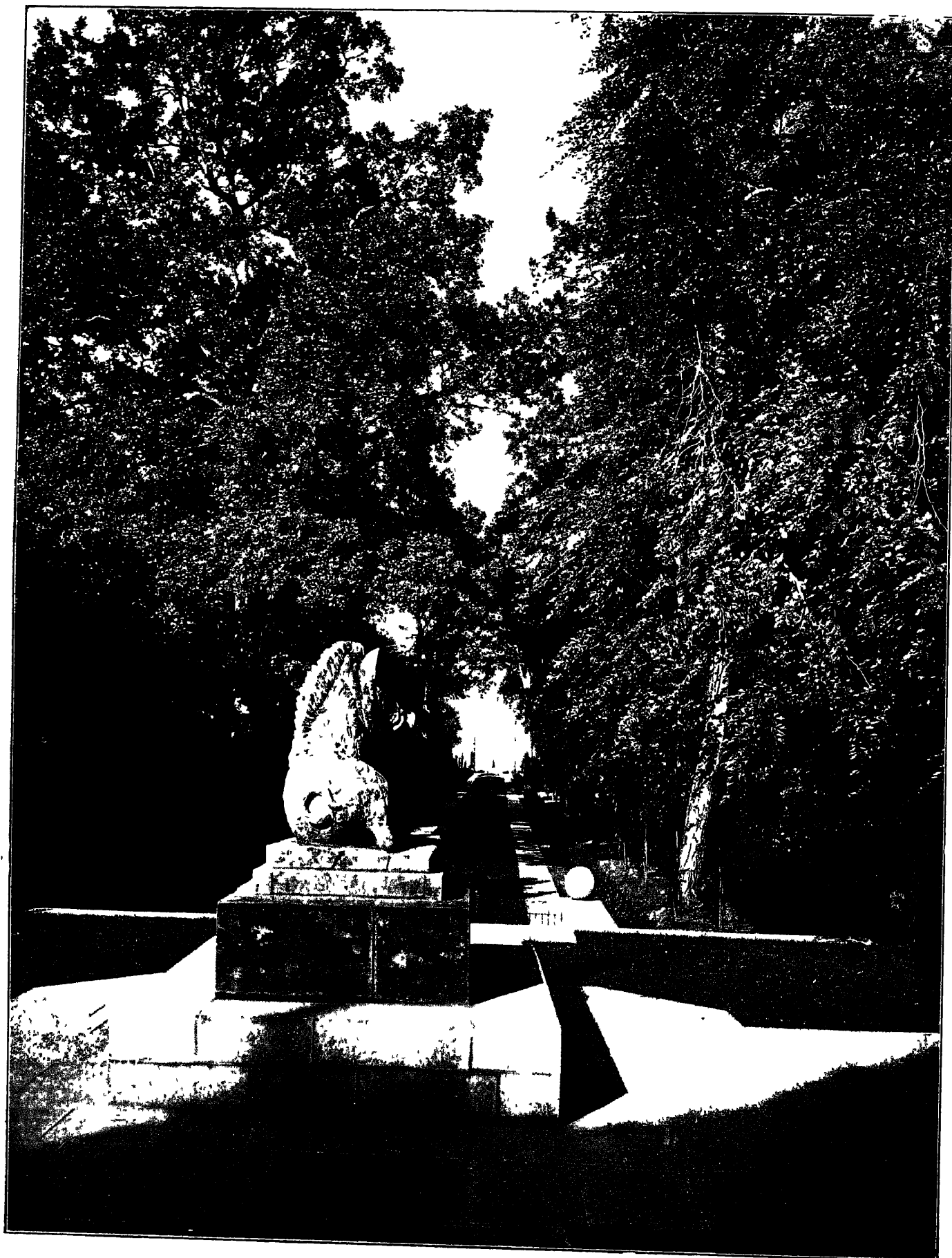


FIG. 247.—WILD BOAR AT LEWISTON MANOR.



FIG. 248.—ROSE ARCH SCREEN AT FOOTS CRAY PLACE.



FIG 249

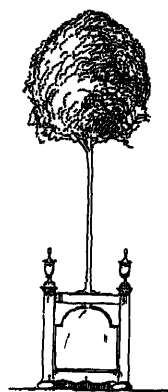


FIG 251.

productions with their ridiculous filigree ornament which offend the canons of taste.

Curved seats are often required, and are particularly suitable for placing at the end of a garden vista, when additional interest may be given to the arrangement by marking the centre by a sundial or a choice piece of statuary on a tall pedestal. Illustration No. 256 shows an arrangement suitable for a classic garden terminating a path framed by herbaceous borders. A sense of size and massivity is desirable in stone seats, otherwise the expense is not justified

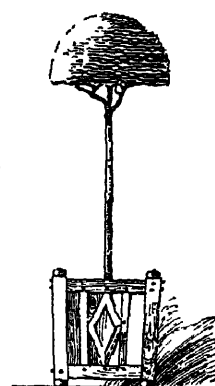


FIG. 250.

*Dovecotes.*

Dovecotes are extremely decorative features where it is possible to introduce them, but, unfortunately, the havoc wrought by the doves in the flower garden bans them. Illustration No. 217 shows a design erected in a garden laid out by the author. In smaller dovecotes, the interior should be divided up into a series of boxes with only one entrance to each. The usual size is about twelve inches every way, but fan-tailed birds should be given a little more room if possible. Where it is desired that the birds should breed readily this is still more necessary, and, if possible, there should be a second nesting-box opening out of the first. The dovecote and the nests must be arranged for cleanness, therefore inaccessible corners are to be avoided. Dovecotes contrived in the gables

of out-buildings and summer-houses are more practical than those of the form illustrated, where the doves, and not the erection itself, are the attraction. Several old manor houses have large circular dovecotes, their brick or stone walls honeycombed with

## STATUARY, TREILLAGE AND GARDEN FURNITURE.

nesting holes A large framework supporting a ladder is built to a central circular post, so that the whole can be revolved and any of the hundreds of nests be reached at will.

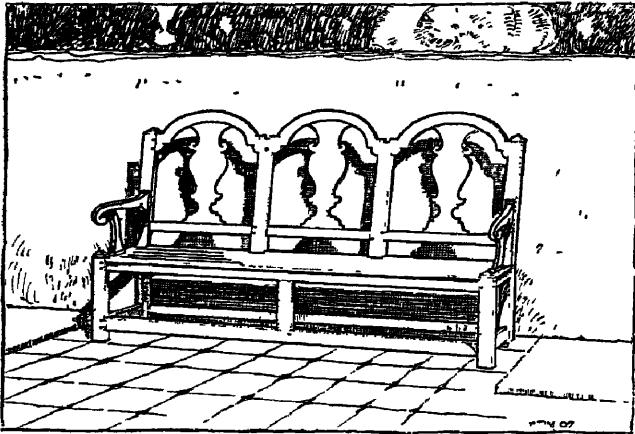


FIG 252

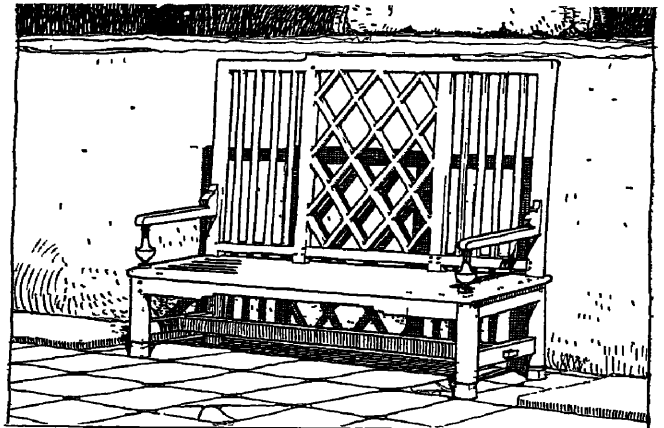


FIG. 253

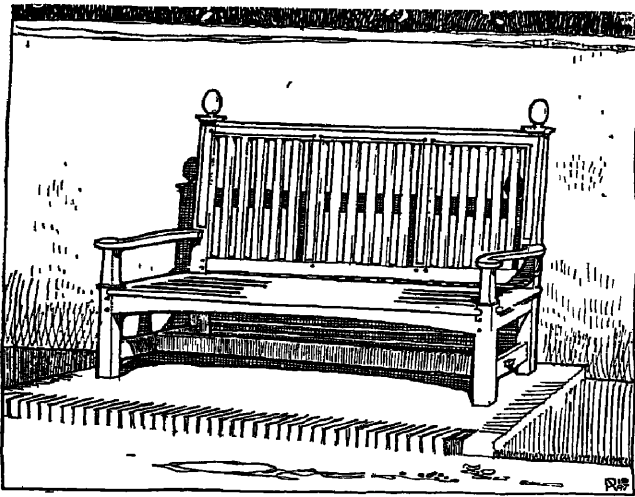


FIG 254

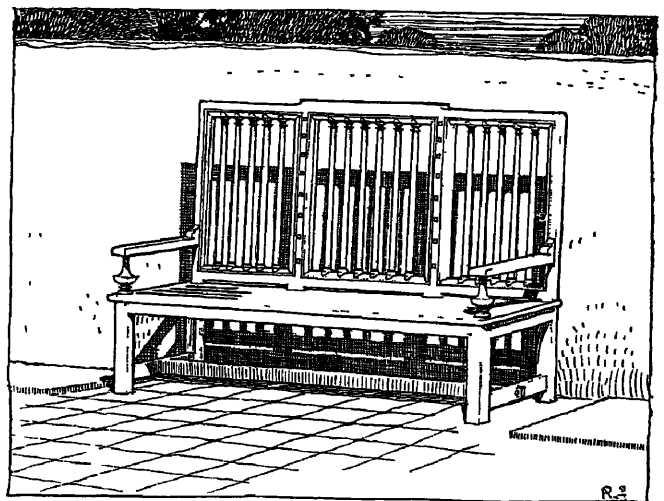


FIG. 255

The walls, about fifteen feet high, support a conical roof which has a lantern with pigeon holes at its apex by which the birds pass in and out.

Illustration No. 505 shows the exterior of an aviary which forms a welcome adjunct to a garden scheme

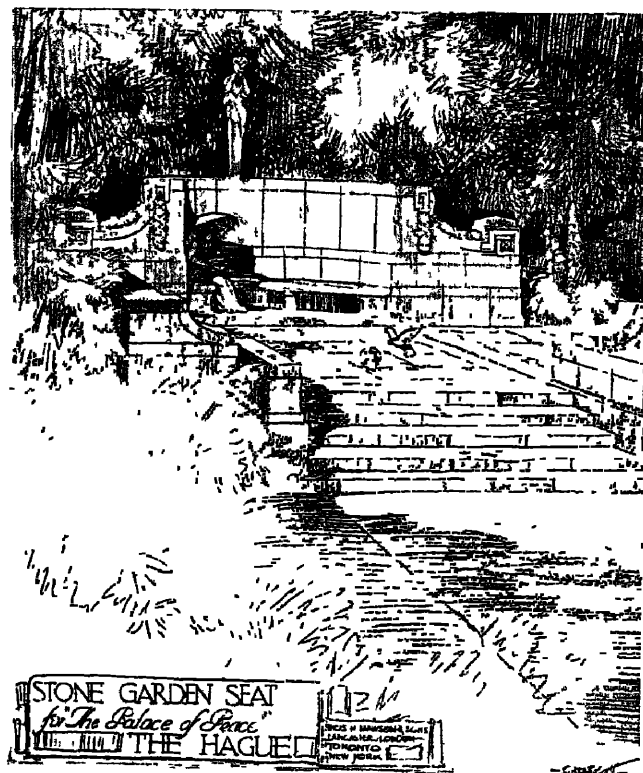


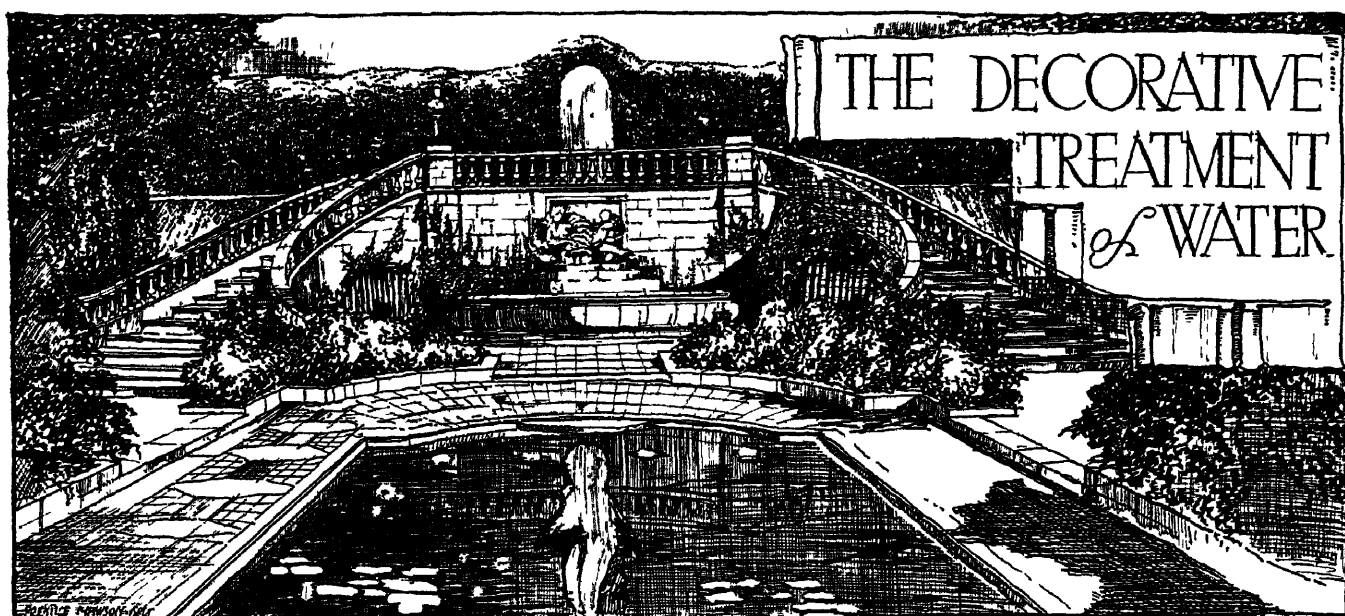
FIG 256







FIG. 257—THE CANAL, KEARSNEY COURT, NEAR DOVER.



## CHAPTER XII.

From childhood to old age, water in its natural and decorative forms, has an indescribable fascination over the mind. No doubt the reason for this is found, at least to a large extent, in its variableness, and in its sparkle and glitter. Its surface alters with every shower, every change in the sky, every variation in the breezes, every stage in the changing seasons, and every hour of rotating day and night, so that it may be said, with perfect truth, that we never see it under the same conditions twice, and never is its surface the same.

*Water's  
fascinating  
qualities.*

In parched and oriental countries, water is essential for the growth of the vegetation in the gardens, being thus its very life. Small wonder that it has acquired a mystical significance on this account; a fact which the scriptures attest, notably the poetic portions, such as the Psalms and Canticles. The Moors in Spain have perhaps the freest fancy in this respect, their abundant and enriched fountains, canals in their courts, bubble jets, and runnels cut in the pavements, attest their skill and ingenuity. After them the monarchs of India and Persia have shewn by their surviving examples, how cleverly they could manipulate water for effect in their gardens. Later the Renaissance gardens of Italy, in which water abounds, may be enumerated as worthy of study.

Water appeals to us, because of its marvellous facility in adapting itself to its surroundings. On the mountain side, it rushes headlong over the rugged precipice with a dull roar which adds to the wildness of the prospect, and, on the other hand, in the peaceful meadow, it flows still and silently, its surface scarcely ruffled by passing breezes and in perfect harmony with browsing kine and the gently waving reeds.

It is only when man, neglecting the lessons of Nature, tries to reproduce her incomparable beauties on a mean scale by feats of obtrusive engineering, that water can fail to please. Here we may take our first and most primitive rule for its use in our gardens—never to belittle Nature by feeble imitation. Where the conditions will not allow of the introduction of water, on its own terms shall we say, and among purely natural surroundings, then treat it in an honestly and confessedly conventional manner, in keeping with the rest of the scheme and in scale with the whole, whether it be as the lordly canal before a renaissance mansion or the quaint bird-bath before a cottage window. In whatever way it is employed, whether rising or falling it provides a highlight, or lies still in a deep mysterious shade, and where it ripples over boulders and shallows, the very essence of joyous life; it produces at all times a sensation of coolness, freshness and rest.

## THE DECORATIVE TREATMENT OF WATER.

Although many, perhaps most, gardens have to be content without water in any form, it may be questioned whether they are complete without it, if only a small pond, reflecting and blending, in thousands of beautiful ways, the hues of flowers, foliage and sky, at the bidding of every passing breeze; or but a swamp pool, hidden away in cool, fern-embowered shade and fringed with luxuriant masses of bulrush, iris and sedge.

In devising the form in which water shall be introduced into the garden and the design of its receptacle, there is a vast range for the exercise of the imaginative and creative faculties.

*Water's  
many  
applica-  
tions in the  
garden.*

The landscape gardener, in his naturally arranged lake and waterfall, endeavours to create a sense of breadth and rural simplicity, while the scholar, inspired, possibly, by the classical Italian and old English examples, prefers the elegance of the circular or



FIG. 258 —WALL FOUNTAIN AND LILYPOND ON TERRACE

geometrically planned pond; and each is right in its own sphere. All schools, however, agree that water in some form is desirable—the Italians in their numerous cascades, fountains and pools, as at the Villa d'Este; the French in the virile and heroic compositions of le Notre at Versailles, and the Japanese and English in their freer but equally distinctive styles.

It is seldom that an opportunity occurs in an English garden for formal arrangements of water on the scale which gives character to so many Italian and French gardens. Even in the larger public parks we feel instinctively that elaborate and theatrical displays of waterworks are out of place and out of keeping with our national spirit. In this country, large sheets of water are more often obtained by flooding valleys or low-lying land, the resulting lake or pond having an outline which follows the natural contours of the surrounding rising ground, an arrangement which suits our homely landscape far better than those in which engineering feats are much in evidence. We have however, many formal arrangements of water which, though on a smaller scale than

## THE DECORATIVE TREATMENT OF WATER.

the classic examples just quoted, are more suited to their environment, such as the canals of Hampton Court, Chatsworth and Melbourne, Derbyshire, or the Round Pond at Bushey Park. In other places where gardens with smooth lawns bound a river on either side, as at Clare College, Cambridge, the river, lawns and any accompanying architectural features may be grouped into one formal composition with excellent results, and even where only one side of the river is available for treatment, as at Trentham or Drakelow, a successful formal arrangement may be evolved.

These, however, are schemes which are only adapted to large gardens accompanying palatial mansions and in the home park, but it is in the garden near the house that water is most entrancing. Fortunately there are so many ways in which it may be adapted to varying circumstances that few gardens need be without it in one form or another. The manner of its introduction will not only be dependent upon the character of its surroundings and its position in relation to the residence, but also upon the volume and pressure of the supply and whether it can be obtained on the estate or must be brought from a distance, also whether it must be paid for by meter or otherwise. If the supply is from a stream passing through the grounds, a



FIG. 259.—BOY AND FISH FOUNTAIN.

good head of water would suggest a series of cascades. If the stream were one of those sleepy rivulets so characteristic of the home counties, then the obvious treatment would consist in the arrangement of a formal lily pond or ornamental canal in which iris, reeds, or other water-loving plants might be naturalized.

The most frequent way that water is effectively used in the garden is the fountain, in one or another of its many kinds, which vary from the single jet rising from a simple pond to the elaborate and sculptured designs for which Versailles is famous. The choice is therefore a wide one, but, as in every other feature of the garden, while

*Fountains.*

## THE DECORATIVE TREATMENT OF WATER.

the design and degree of elaboration should express a full sense of the relative importance of its position in relation to surrounding features, it is far better to err on the side of simplicity, than complexity and over-elaboration.

### *Fountains in exposed positions.*

In nine cases out of ten where a fountain is well placed, it will form part of either a formal terrace scheme, or the central ornament in an old English formal garden such as a rose garden. In the former instance, if the position is exposed, it may not be possible to have a rising jet, because as the wind blows the water, clear of the basin it prevents the terraces from being used at all on the leeward side, while in the case of the formal garden, which would usually be enclosed with tall clipped hedges, there would be ample shelter. Whenever there is more than the gentlest breeze, blown spray renders all the surroundings damp, and there will be comparatively few occasions when



FIG. 260.—FOUNTAIN IN ROME.

it can be used. The extent to which the water may be blown is not realized by the inexperienced. An instance which may be proved:—the writer has felt the spray from the fountains in Trafalgar Square, London, at the corner of Cockspur Street, on an exceptionally windy day, even though in this case there is considerable shelter from the surrounding buildings. On an exposed terrace, it is better to allow the water to spout downwards into a series of basins, as in the well known example at Revelstoke, or, where there is not sufficient pressure on the supply main for this, to be content with a bubble fountain. The best place for a fountain is an enclosed court of some kind where the still air might be oppressive on a hot day were it not for the sensation of coolness and freshness imparted by the falling water, and it is here that the rising jet will be least troublesome. In such cases the light feathery streams may rise from the surface of the water, or where more elaboration is called for, a group of statuary, such as the boy and dolphin shown in illustration No. 259 may be introduced. The height to which the jet should rise and the diameter of the pond into which it

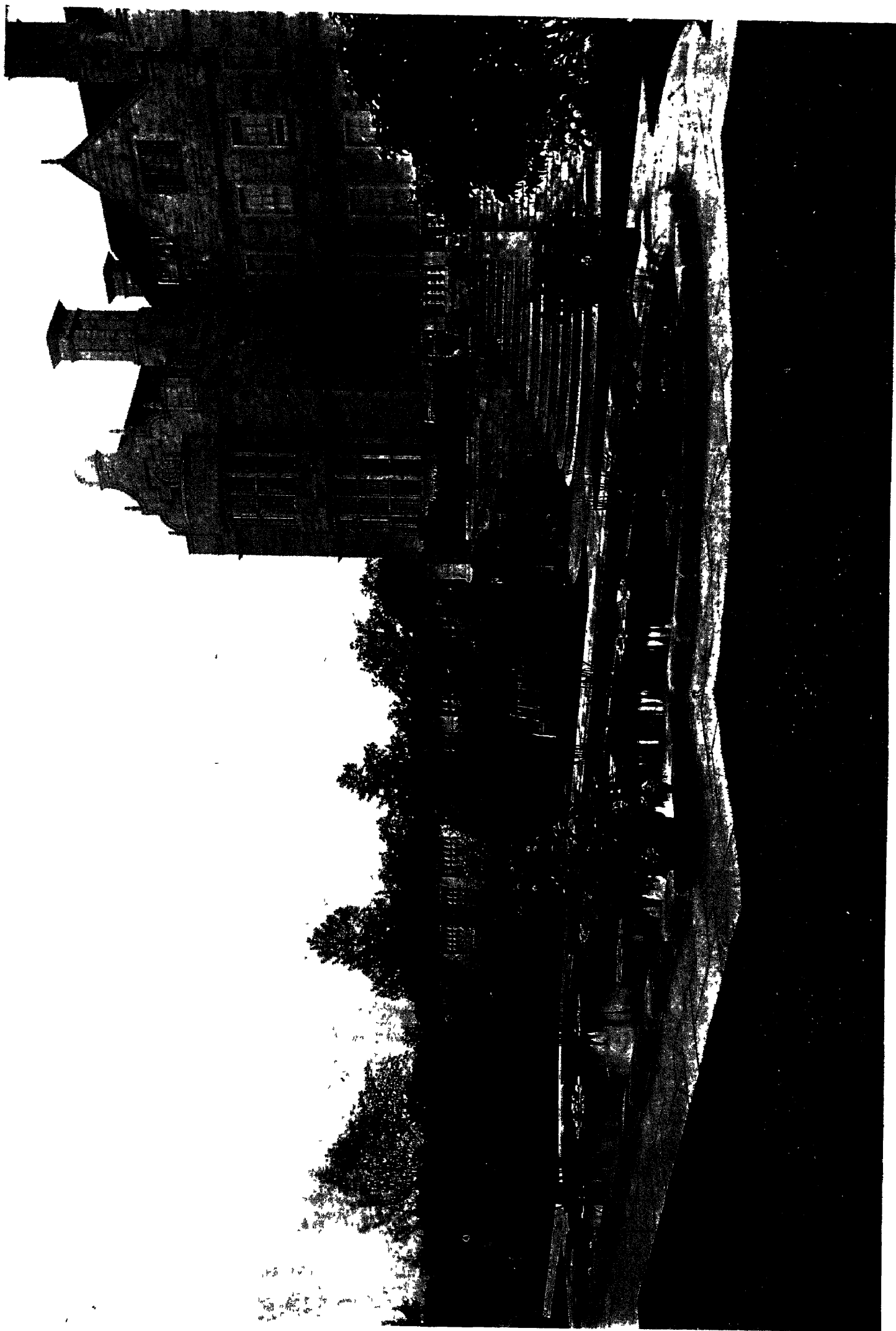


FIG. 261.—THE LILY POND, WYCH CROSS PLACE, SUSSEX.

## THE DECORATIVE TREATMENT OF WATER.

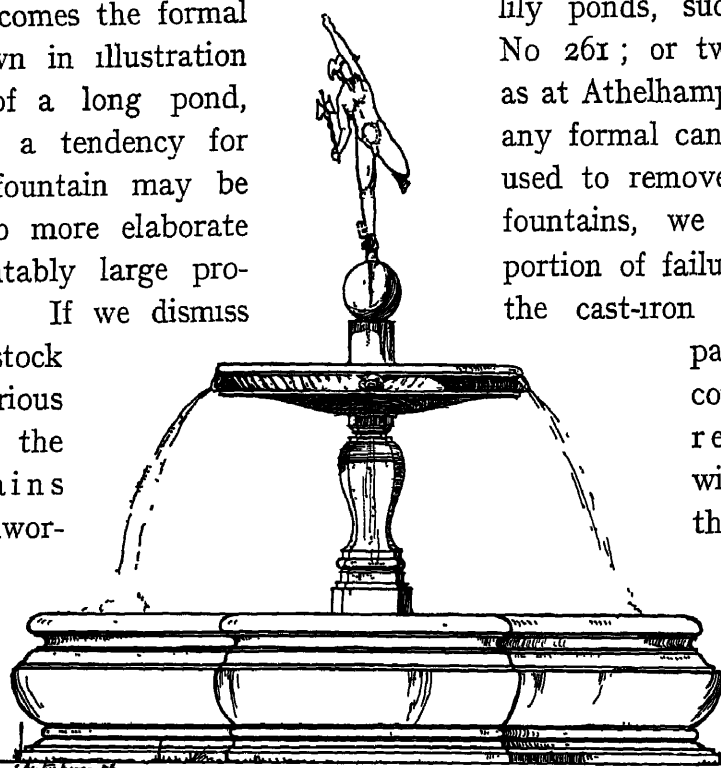
*Simple  
designs.*

falls, should be carefully proportioned; and, generally speaking, heaviness in the effect on the one hand and a liability to overflow on the other will be avoided by making the latter very slightly more in diameter than the height of the former. At Drakelow, Derbyshire, there is a well-balanced arrangement consisting of a circular stone basin with a simple stone verge level with the grass, and in the centre a bronze figure supporting the jet. At Lewiston Manor the author designed a simple fountain of this kind, which is surrounded by a basin edged with two concentric steps leading down to the water, the upper one level with the surrounding paths, thus obtaining a strongly marked line of enclosure without over-elaboration. Many other well-known examples will no doubt be familiar to the reader.

*More  
elaborate  
fountains.*

A single jet becomes the formal Cross, Sussex, shown in illustration from either end of a long pond, Wherever there is a tendency for stagnant, such a fountain may be

Turning now to more elaborate with the unaccountably large pro- design and placing If we dismiss the iron-founder's stock vulgar for even serious find that most of the terra-cotta fountains elaboration are unwor- which they regard to the terial, it is say that, is no valid effective erec- not be pos- more sober- stone-like ra-cottas, it



*Sketch for FOUNTAIN at  
LEES COURT Faversham  
for Mrs HALSEY*

FIG. 262.

been done. The preponderance of heavy and over-elaborated stone fountains, with their foliated cusps is difficult to account for, and one can only conclude that the great importance of a well-balanced fountain, with the details carefully proportioned, means so much to the appearance of the mansion, that it should be entrusted to its architect. Be this as it may, there is room for improvement in the design of these features in both public parks and private gardens if they are to be worthy the prominence which their position in the scheme gives them. Unless competent design and workmanship be obtained, it is better that a simple basin of well-balanced proportions suffice, say on the lines of the graceful old example from Rome shown in illustration No. 260.

There are places where a ponderous fountain is desirable and others where a light spiry effect is preferable. Three examples of sculptured fountain shafts are given. In the tailpiece to Chap. III there is a central shaft rising from the upper basin ornamented with three figures supporting a further small basin from which the water falls into the larger basin at the foot of the shaft, and from thence into the pond below. In the second illustration No. 262, a fountain of a more usual type suitable for almost any position is given, while in the third illustration No. 264 is shown a small but very chaste design which is suitable for many positions where a large fountain pond is impossible. It may be employed instead of a sundial to centralize a group of flower

lily ponds, such as that at Wych No 261; or two such jets may rise as at Athelhampton Hall, Dorsetshire. any formal canal or pond to appear used to remove this impression.

fountains, we are at once struck portion of failures met with in their the cast-iron fountain made from

patterns as being too condemnation, we still remaining stone or with any pretensions to thy of the positions

occupy. With latter ma- sufficient to while there reason why tions should sible in the coloured and surfaced ter- has seldom



FIG 263.—POND GARDEN AT WOOLLEY HALL

beds or to give a focussing point in a grass glade. The beautiful shaft bears traces of Alfred Gilbert's unique craftsmanship. Such a fountain might stand on an upper terrace immediately in front of one of the principal entertaining room windows to form a bird bath. These three may be taken as being representative of three different forms of fountain shafts, and the tailpiece to Chap. XXI shows a piece of sculpture which could be used with effect for their further enrichment.

Whatever the design adopted for the fountain, however, nothing but the best of its kind can possibly be permanently satisfactory, and therefore it is far better to have a simple erection well proportioned and strongly constructed than to spend the same amount of money on an ambitious effort which cannot be completed with the same thoroughness. The very mention of a fountain is sufficient for most clients, calling to mind a vision of endless expense and worry and inefficiency, yet, if the work is thoroughly well done at the outset, there need be no fear on this account.

The pond or basin of a fountain may be treated in a great variety of ways, a number of which are indicated on the various plans of gardens given in this work. As a rule, a plain circle (Ill No. 260)

*Fountain  
basins.*



FIG 264 —SMALL FOUNTAIN OR BIRD BATH



## THE DECORATIVE TREATMENT OF WATER

or an octagon (Ill. No. 265) is best, while in other positions, especially where jets on the four sides throw inwards towards the central shaft, some such combination of square and semicircle as that shown in illustration No 266 would be more effective, allowing one semicircular bay opposite each of the four jets. An elliptical basin is very rarely called for, and where used should be treated as simply as possible without any pretence to a moulded kerb

*Fountain  
kerbs.*

The design of the kerb surrounding the basin is also of much variety. In simple fountains a plain flag, level with the path or grass surrounding it is most suitable, or where a greater sense of protection is required than this arrangement will give, the flag may be raised on a dwarf wall, so as to bring its top surface about eighteen inches above the surrounding ground. Where a roughly built wall and coping are more becoming, it may be adorned with little water-loving ferns and plants inserted in the joints; or, again, oak posts may rise out of the coping at regular intervals to a height of about six feet, with swag chains between them overgrown with roses.



FIG 265 —SIMPLE FOUNTAIN BASIN

Where elaboration is needed, the kerb may consist of blocks of stone suitably moulded, or, to obtain the richest effect of all, a balustrade "leaning height" may be used, and if necessary, further enriched by piers at intervals surmounted by finials. The latter must be very appropriately chosen and carefully proportioned in order to look neither obtrusive on the one hand nor insignificant on the other.

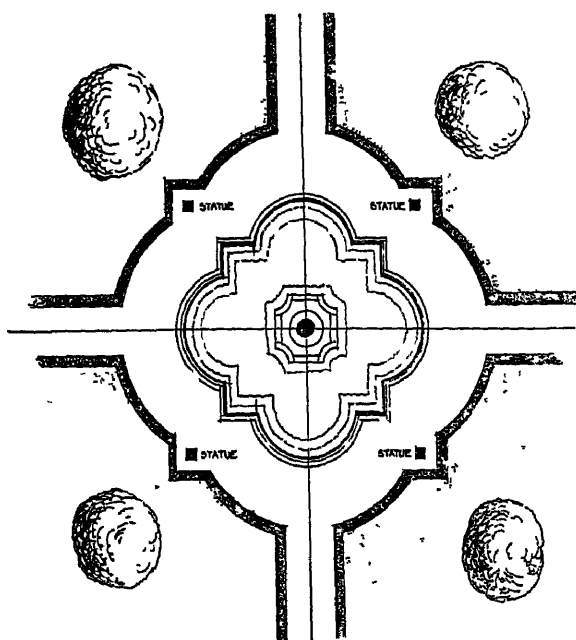


FIG 266

The pond itself, which should be two feet three inches deep below the water line, if water lilies are to be grown, is sometimes formed for the sake of cheapness with a bottom of puddled clay and walls of brick set in hydraulic mortar with a backing of the same material, but in all cases where the basin is not of extraordinary size, it is far better to build the whole in cement concrete carefully finished to a smooth surface and with all internal angles rounded off, so as to facilitate cleaning out. Whichever method is used, the inside of the pond should not be vertical but

sloped or battered, so that ice may rise as it expands in freezing, otherwise it will burst the rim or carry away the coping.

*Plumber's  
work for  
fountains.*

The plumbing, consisting of the water supply with its stop cocks, the overflow and the means of emptying the basin, should receive special care, as there is nothing so annoying and so absurd as a dry or troublesome fountain, necessitating frequent digging up of paths and lawns. It is impossible to lay down rules for the size of the supply pipe as it depends on so many varying factors, but where there is any doubt

## THE DECORATIVE TREATMENT OF WATER.

of the pressure or "head" on the water being adequate, much may be done by making it extra large, avoiding unnecessary bends, and making those which cannot be avoided as easy as possible. Whatever taps are necessary to individual jets, there should be one main cock under a small hinged cast iron cover close to the fountain itself. This is preferable to a sunk tap to be turned with a long key which is apt to be mislaid. Where there is only one tap, the cover need not be more than four inches square, but where the supply divides and each branch has separate taps for controlling different portions of the display, the main cocks and all branch taps can be collected in one trap. There should also be another tap, near the source of supply, to empty the pipes during frost and the worst months of the year. Where the water is obtained from a stream or pond, the intake should be from a small settling tank with a copper-wire grid between the inlet and the mouth of the supply pipe. This may be made quite cheaply by the local carpenter in the form of a strong pitchpine box tarred inside and out, and

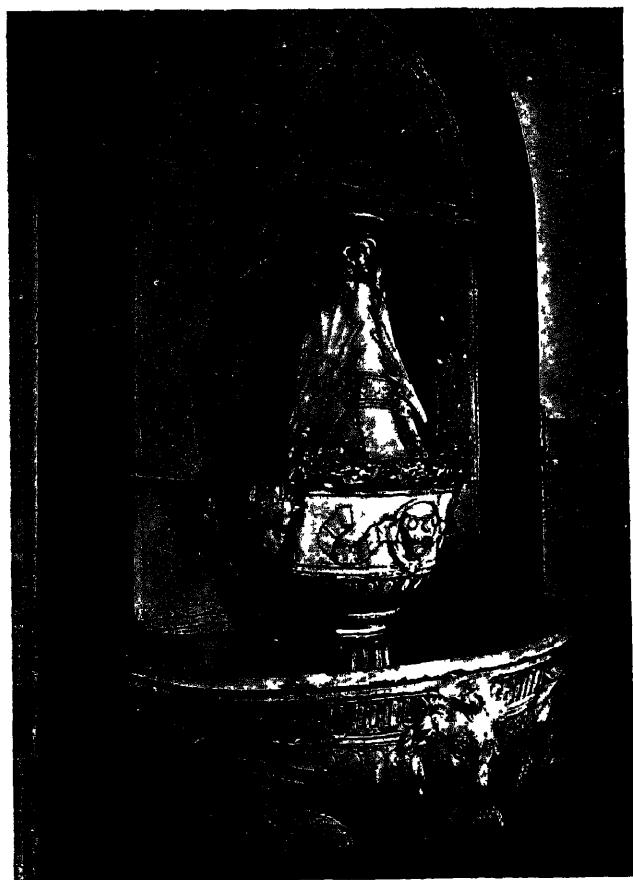


FIG. 267.—WALL FOUNTAIN AT FLORENCE,  
BY DONATELLO.

buried in the ground level with the lid, which should be hung on strong brass hinges. All the taps should be of gun metal and if the pressure is great, of the screw-down type.

The overflow should of course be of a larger diameter than the supply pipe, and should be provided with a strainer to prevent leaves and other *debris*, which blow into the basin, from choking it. It should be so placed as to keep the water level as high as possible so that a long stretch of bare wall or concrete does not show. Means of emptying the pond for cleaning out should be provided by a pipe communicating with the overflow. In the case of small fountains it may be plugged by an ordinary plumber's bath waste with its brass plug, but in the larger basins, Pulham's patent plug, which consists of a stoneware ball dropped into the open end of the pipe, may be used. Needless to say, all connections should be accessible in the event of repairs being necessary.

Fortunately in the matter of wall foun-

*Wall  
fountains.*

tains, we have not to lament such a dearth of worthy examples, as in the sculptured basin fountains and their standards. Hardly a year passes but we see exhibited, one or more becoming models for this class of fountains exhibited at the Royal Academy or kindred exhibitions. For the most part they are variations upon a classically draped figure, poised over a shell-like tazza, yet in spite of this lack of originality of motif they are worthy of a place in the garden, and it is surprising that we do not oftener see this feature introduced. They are equally delightful in the larger garden schemes as in the smaller ones, as any tiny stream of water if collected into a tank or reservoir in the higher altitudes is sufficient to give them their *raison d'être*.

In the large pleasaunce, of course, they would, unless on a large scale, form only a subsidiary feature, giving point and interest to an otherwise blank wall facing the end of an important walk, or adding the cool influence of falling water to a shady retreat. In small gardens, however, they may form the central ornament up to which everything else leads more or less, which, does not mean that the little domain should have only one

## THE DECORATIVE TREATMENT OF WATER.

interest or be devoid of that charm which only contrast and a certain complexity can give. For large wall fountains, such as are only occasionally required, there is abundant precedent in the ancient "lavatories" attached to monastic institutions in Italy, while for smaller ones, most of the larger Continental towns can provide material for adaptation, such as that shown in illustration No 267. Illustration No 268 shows one essentially English in its treatment.

*Water  
supply for  
fountains.*

Before leaving the subject of fountains, a practical point of prime importance, applying equally to every kind, must be touched upon. This is the paramount necessity of a constant and ample supply of water at a cost low enough to allow of regular use. To insist urgently on such an obvious point might seem unnecessary, if practical observation did not show that fountains as garden ornaments are discredited by many people, because of the failures from this cause. The fountain should play joyously, not weep sadly, and nothing is more distressing to the garden lover than a fountain devoid of water or one which feebly trickles, the picture of ineptitude and incapacity.

No sculptured effect nor setting can justify a fountain which can be used only on very special occasions, and then suggests vividly to the mind of its owner a vision of water bills.

In this connection Evelyn's description of the fountain at Hampton Court comes to mind. "In ye garden is a real noble fountain with syrens, statues, etc., cast in copper by Faranelli, but no plenty of water." Constancy of supply is more important than a large amount or a heavy pressure, though all these factors will have their influence on the form the fountain will take. If it is known beforehand, that at certain seasons the supply will be sparse, while at others there will be more water than can be conveniently used, the fountain may be so designed that it will appear complete with one small jet, other displays being available for use when possible. There may even

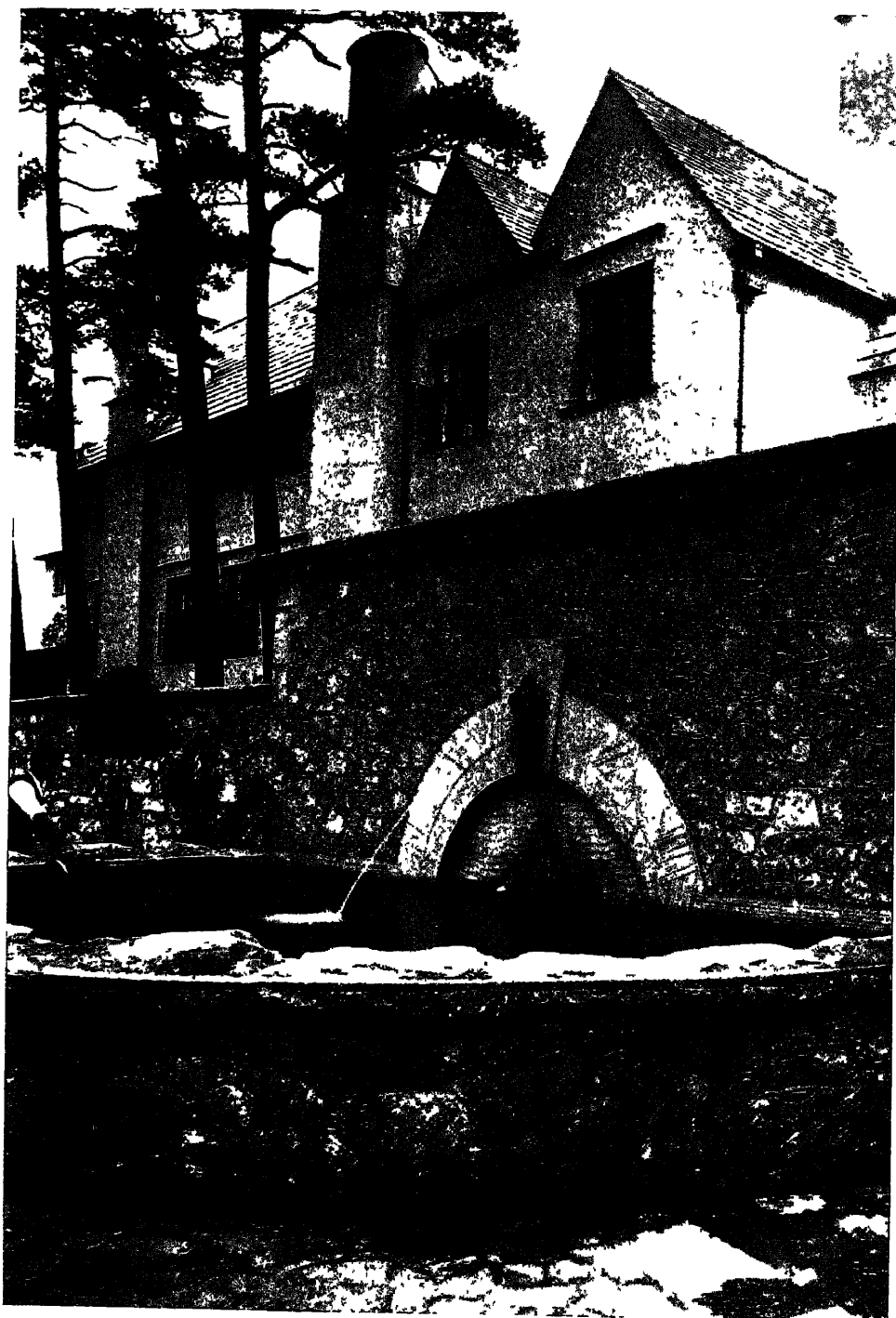


FIG 268—WALL FOUNTAIN IN GRANITE.

## THE DECORATIVE TREATMENT OF WATER.

be two separate sources of supply. In the fountain shown as tailpiece to Chap. III, and already referred to, the central jet might be fed by the smaller and reliable supply, while a bubble fountain, to be used when the larger and more fickle stream is not

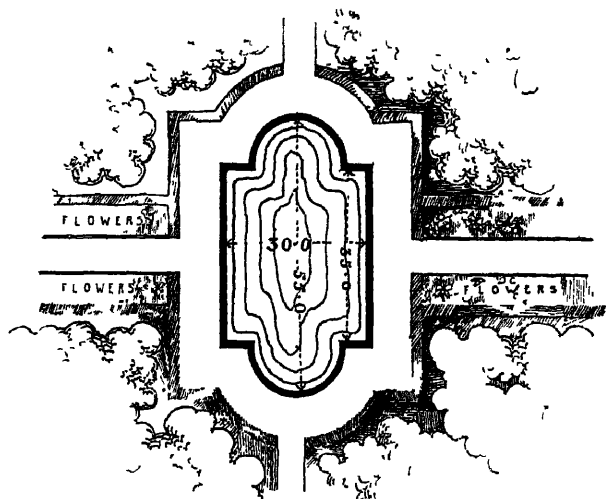


FIG 269

available, might be arranged under the arched cavity at the base of the central shaft. It is possible to imagine a case in which a third, and possibly expensive supply, were added for occasional use, when the same fountain might be fitted with jets rising on all sides from near the rim of the lower basin and spouting inwards into the higher basin after the manner of Carpeaux's fountain of the Zodiac. Thus, whether one, two or three sources of supply are in use, the fountain would appear fully furnished and complete.

If aquatic plants are to be grown in a fountain basin, it must be large enough to place them away from the main streams of falling water, and if gold or silver carp are to be inserted, dark corners should be provided either in the form of plants or loose stones

Dipping wells in the kitchen garden have the special advantage of fulfilling a utilitarian purpose as well as an artistic one. Ice-cold water drawn direct from the

*Dipping wells.*



FIG. 270.—WALL FOUNTAIN (FIRST OF A SERIES) AT HANNAFORD, DEVONSHIRE

supply pipe, should not be used for watering, but needs to be exposed to the air for a time in order that it may take the temperature of the surrounding atmosphere before

## THE DECORATIVE TREATMENT OF WATER.

being poured or syringed over the plants. How the well and its surroundings may be composed into one and made attractive is described in Chapter XV; it is sufficient here to describe its construction.

Effective dipping wells are formed from the old well-heads imported from Italy, and which were originally constructed by hollowing out the capital of a pillar from a ruined temple dedicated to one of the deities of the Roman pantheon. Sometimes they have been provided with a wrought-iron over-head arrangement whereupon to suspend the rope and bucket, and this may advantageously be retained. Another form consists of a hexagonal or octagonal brick structure with a plain coping made from stone flags. From the nature of its position, in the utilitarian portion of the grounds, elaboration is out of place.

Dipping wells should, of course, be fitted with a draw-off supply, and where it can be contrived so as to be out of sight, a ball tap to keep the water-level constant.

### *Cascades.*

Architecturally treated cascades can only be successfully formed where the character of the accompanying architecture demands magnificence. As before stated, opportunities for work of this character on the largest scale will only seldom occur in this country, and it is difficult to conceive any circumstances which would allow of anything on the scale of the cascades at the Villa d'Este. This is not only the result of a national conservatism which makes any superlative effort after grandeur appear forced and unnatural, but also of climatic conditions. In hot and dry countries, such as Italy or India, such features appear indigenous, but here, where only one or two months in the year are hot enough to justify their creation, they appear exaggerated. There is, however, no reason for the dearth of architectural cascades on a simple scale, unless it be the difficulty experienced in obtaining a sufficiently large supply of water at an altitude high enough. While this may prevent the formation of a large stepped cascade, some such arrangement as that shown in illustration No. 270 should be possible in many situations. This gives the lowest of a series of tazzae which it is proposed to construct



FIG 271 —STATUE FOR A LILY POND.

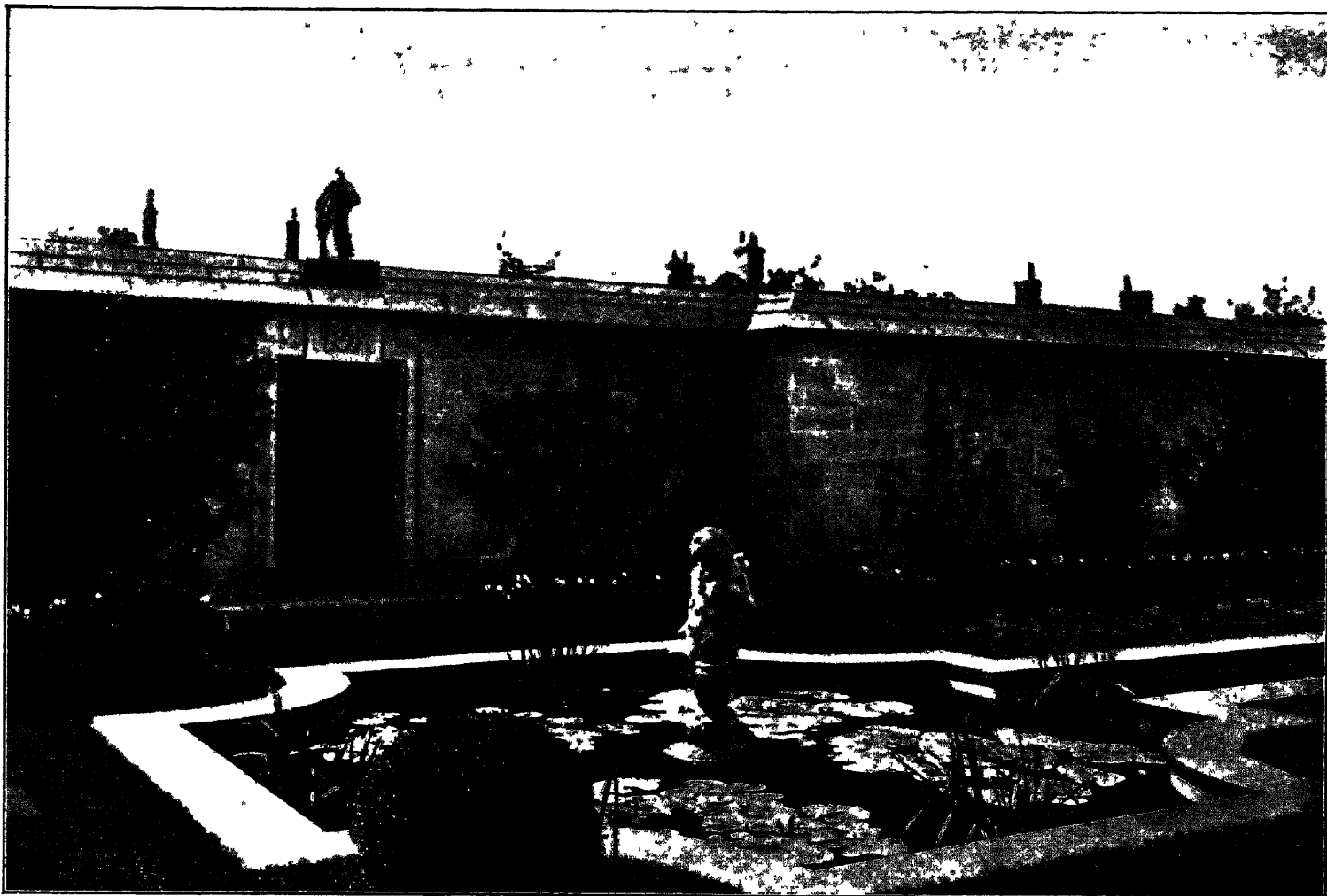


FIG. 272.—WATER LILY POND AT ASHTON-ON-TRENT.



FIG. 273 —TINY CANAL AT ASHTON-ON-TRENT

## THE DECORATIVE TREATMENT OF WATER.

on the hillside, each with its outlet spouting into the one below, an arrangement which would not demand a large volume of water. The one shown is in the neighbourhood of Dartmoor, of the local granite, emphasizing the native characteristics; in other districts, where the native material allows of a lighter treatment, a more elaborate and lighter "motif" might be adopted.

*Water lily ponds.*

The formal water lily pond is a delightful feature which is growing in popularity in this country. In illustrations Nos. 261, 269, 272 and 273, are shown examples from recent designs by the author; in almost every case, they fulfil the functions of a fountain as well as providing a large mirror for surrounding foliage or architecture. The lily pond may be considered as occupying a middle place between the water of the fountain basin with its restricted area on the one hand, and the large formal canal on the other, and partakes to some extent, of the nature of both. Thus they form delightful features, adaptable to gardens of varying size and design, and they have in addition the pre-eminent advantage of introducing to the garden whole families of plants which would otherwise be absent.

Their construction is much the same as that for a large fountain basin, and whether they have a bottom of puddled clay or concrete

depends upon their size and local circumstances, and also whether the aquatic plants are to be grown in pots or not. Illustration No. 248 shows a useful shape and its proportions. For water lilies, a depth varying from twenty to thirty-three inches is most suitable, but calla, sedges and iris must be arranged with their crowns only two or three inches under water. Illustration No. 273 shows how both classes of plants may be accommodated in a long and narrow pond by recessing the sides and keeping the recesses shallow. Illustration No. 272 shows a pond with its corners roughly walled round with stones to form a shallow portion filled up with good stiff soil.

Lily ponds are undoubtedly beautiful during the summer months when they are



FIG. 274.—A RUSTIC BATHING POND.

## THE DECORATIVE TREATMENT OF WATER.

adorned by flowering aquatic plants, but there is danger of their becoming uninteresting in the winter, unless this drawback is guarded against by designing them so as to be

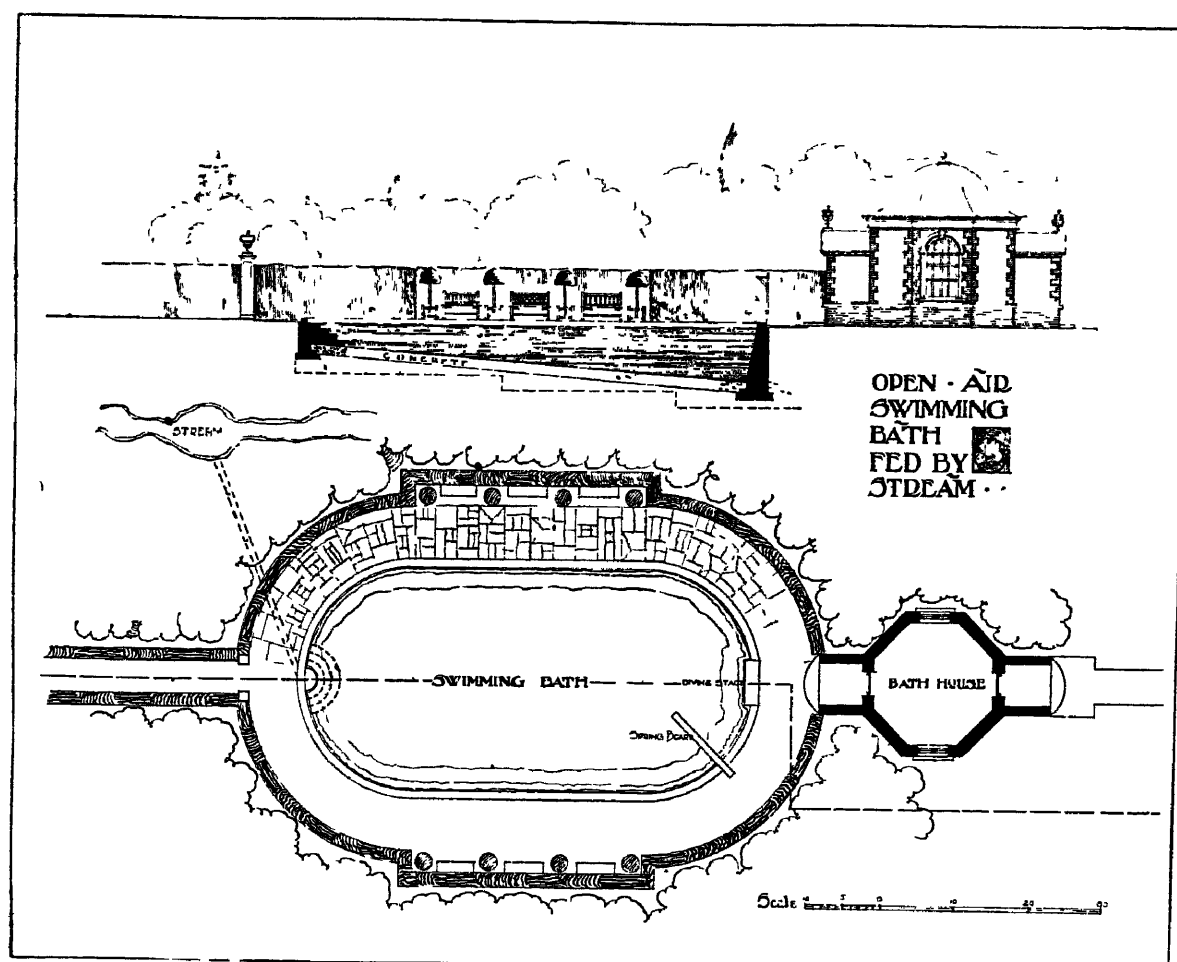


FIG 275 —AN OPEN-AIR SWIMMING BATH.

interesting in themselves. It is for this reason that a piece of choice bronze or lead statuary should always be introduced, somewhat in the manner of the boy and dolphin shown in the photograph of the lily pond designed for Lord Leverhulme, with

or without the stepping stones for reaching the plants shown in the same illustration (Ill. No 319). Another suitable subject is given in illustration No. 271.

The moats surrounding some ancient manor houses offer splendid opportunities for the cultivation of aquatic plants along their margins. The moat shown in the plan of the gardens at Little Onn Hall, Staffordshire (Ill. No. 476), does not surround the house, but some old monastic ruins in the grounds, and the accompanying foliage, water, ruins, and ancient fish-stews together make a most delightful composition.

*Moats.*

Wherever a stream of clear water flows through a garden, it may with comparatively little expense be dammed up or diverted, as shown in illustration No. 274, to form a bathing pond, and even though the pond must be fed with collected surface water supplemented by the domestic supply, facilities may be provided for those residents or guests who delight to begin the day with an invigorating cold plunge taken in the open air. A more elaborate arrangement which would in itself form a decorative adjunct to the general garden scheme, is shown in illustration No. 275, and is designed to accompany an Elizabethan mansion, the simple dressing hut shown in the first example being replaced with a comfortable and convenient dressing room. A bathing pond may be contrived on those rugged portions of the coast which are not suited to shore bathing by enclosing a small creek with a simple sluice to retain the tide water.

*Bathing ponds*

Every bathing pond should have a means of emptying, as this will be frequently necessary, or decaying vegetable matter, which inevitably collects there, becomes offensive.

The large architectural ponds or canals which figured so prominently in the designs of Le Notre were never fully appreciated in this country, though there are a few examples remaining to attest their beauty and propriety, such as the one at Wrest, Bedfordshire. The objections urged against architectural ponds by those who affect to admire the

*Formal Canals.*



## THE DECORATIVE TREATMENT OF WATER.

miniature quasi-natural lakes or pools seen in small gardens, are more imaginary than real. The water in the former is as much a mirror as in the latter, while the architectural pond has the further advantage of suitability to its environment, and particularly to the architecture of the house. The same art which regulates the outline of the basin or pond takes into account also the surroundings and character of the margins to be reflected in the water, while the reflections cast by floating clouds and the animation produced by water-fowl are shared by both alike. Where there is any fear of a shortage

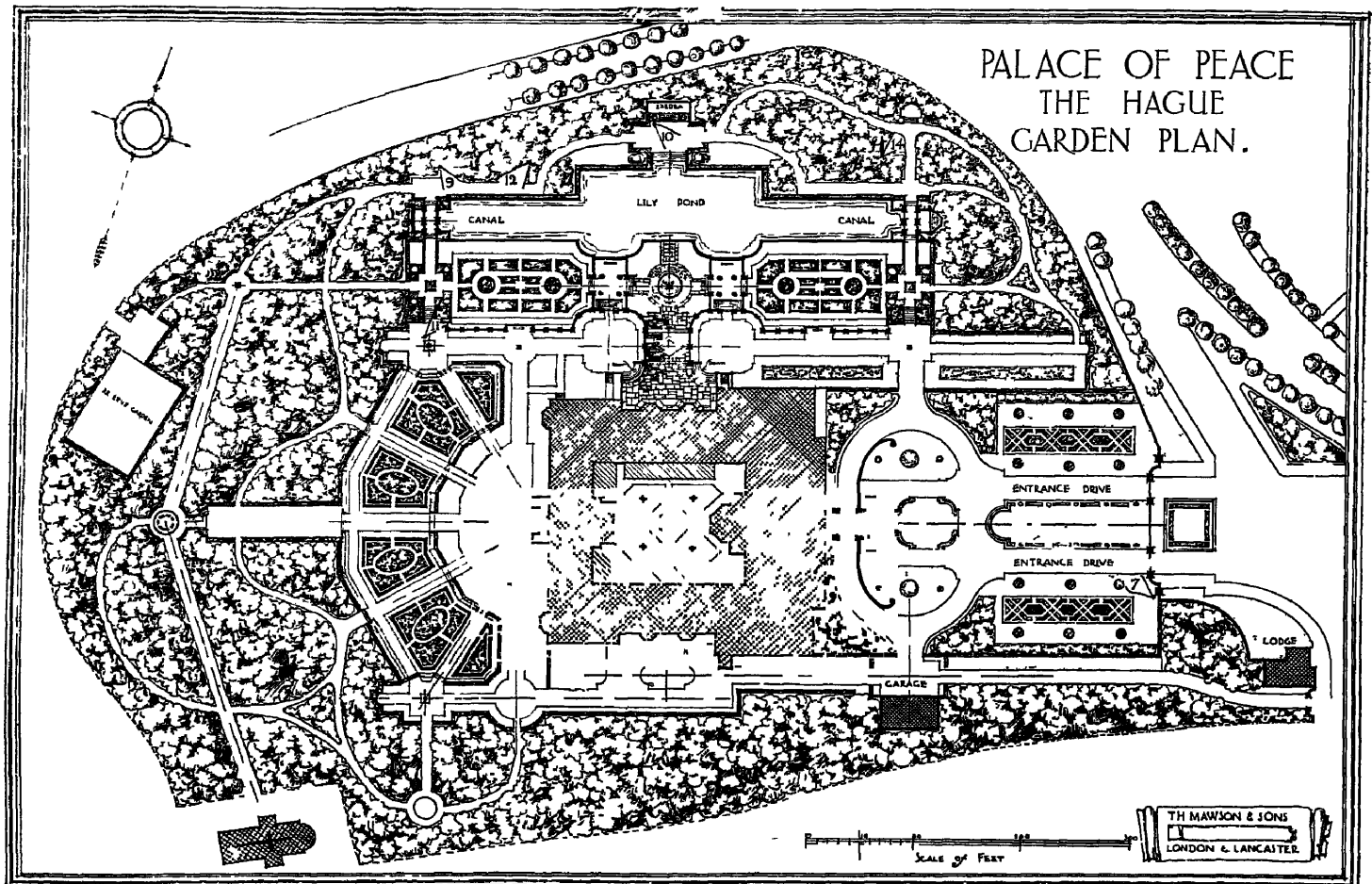


FIG. 276 —PLAN OF THE CANAL AT THE PALACE OF PEACE, AT THE HAGUE.

of water, practical considerations favour the formal pond, as its construction not only allows of its being made more watertight and thus economising the supply, but simplifies the cleaning which is a necessary undertaking if there is the slightest doubt that the supply is not of sufficient force to keep it clean.

The long water lagoon at Kearsney Court near Dover, of which photographs are given in illustrations Nos 257 and 289, is a notable instance of the formation of a large sheet of ornamental water which seemed immediately to fall in with its surroundings. The large elms and other full-grown timber trees which bordered the boggy depression in which it was constructed, though not evenly spaced, or even of one kind, nevertheless give an avenue-like effect and fall naturally into their place as part of a formal composition. It is rectangular in shape with a widened centre portion. The bridges at each end are to be extended by means of a pergola on either side to the full width of the formal water, thus screening the narrow stream above and below the canal. Before the work was undertaken, the stream which now feeds the canal passed underground and out of sight, owing to the porous nature of the subsoil. This made it necessary that the whole of the bed of the canal should be concreted.

Another ornamental canal is shown in illustration No. 277 constructed on the west side of the Palace of Peace at the Hague. Here a sluggish but fairly copious stream passed through the grounds at a level which allowed of any shape and size of formal

## THE DECORATIVE TREATMENT OF WATER.

pond most consistent with the plan of the gardens. This pond has a length of four hundred and ninety feet, with a width in the central part of eighty feet, and in the narrower canal part, of forty feet.

While most formal canals are of considerable extent, sufficiently so in many cases to admit of a Thames punt or Canadian canoe, they may be adapted to almost any size

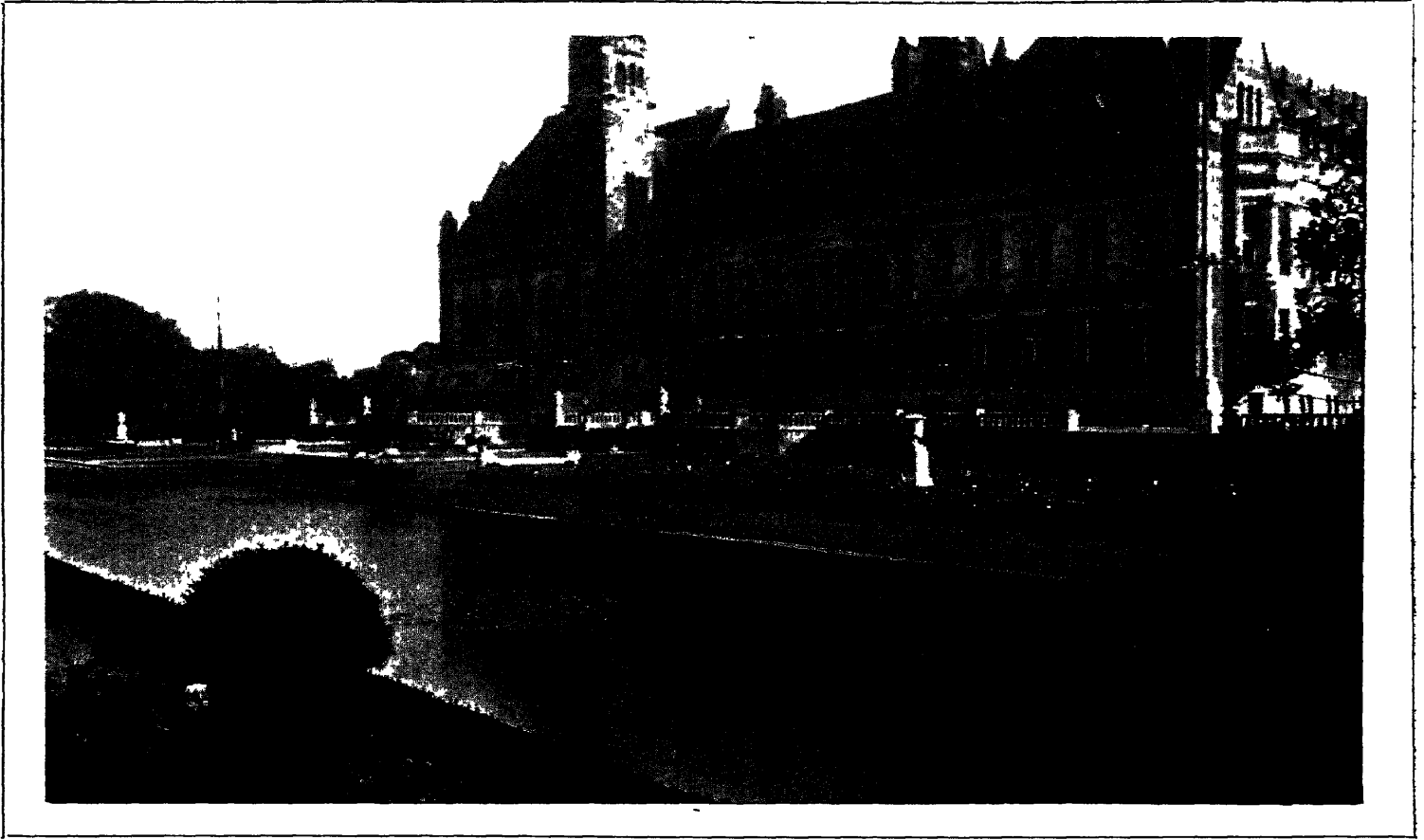


FIG. 277.—PEACE PALACE AT THE HAGUE.

of garden and almost any position. Thus, in illustrations Nos. 272 and 273 is shown a tiny canal which forms part of a terrace garden at Ashton-on-Trent in Derbyshire. This canal, although so small, is not without a distinctive charm of its own and provides interest to this part of the garden scheme.

Where the source of supply for a formal canal is small, the most should be made of it in order to avoid any possible appearance of stagnation. In the example at



FIG. 278.

Kearsney Court already referred to (Ill. No. 257), this is accomplished by arranging a small stepped cascade in connection with the bridge over the inlet, while illustration No. 270 contains suggestions for the disposal of a still smaller supply. In any case, the existence of the inlet and outlet and their positions should be marked by architectural treatment, even if it is only an effectively arranged balustrade or suitably placed vases on pedestals.

The construction of the formal canal may be either similar to that of the water-lily pond or it may have grass banks sloping down to the water. In the latter case, the margin should be treated as shown in the accompanying sketch (Ill. No. 278), with rough pitching at the water line to withstand the erosive action of ripples and wavelets and the wash from canoes and boats. The sod may be carried over the pitching down to the water. The breadth of the band of pitching will depend on whether any variation in the water level can be efficiently prevented and also on the width of the canal and

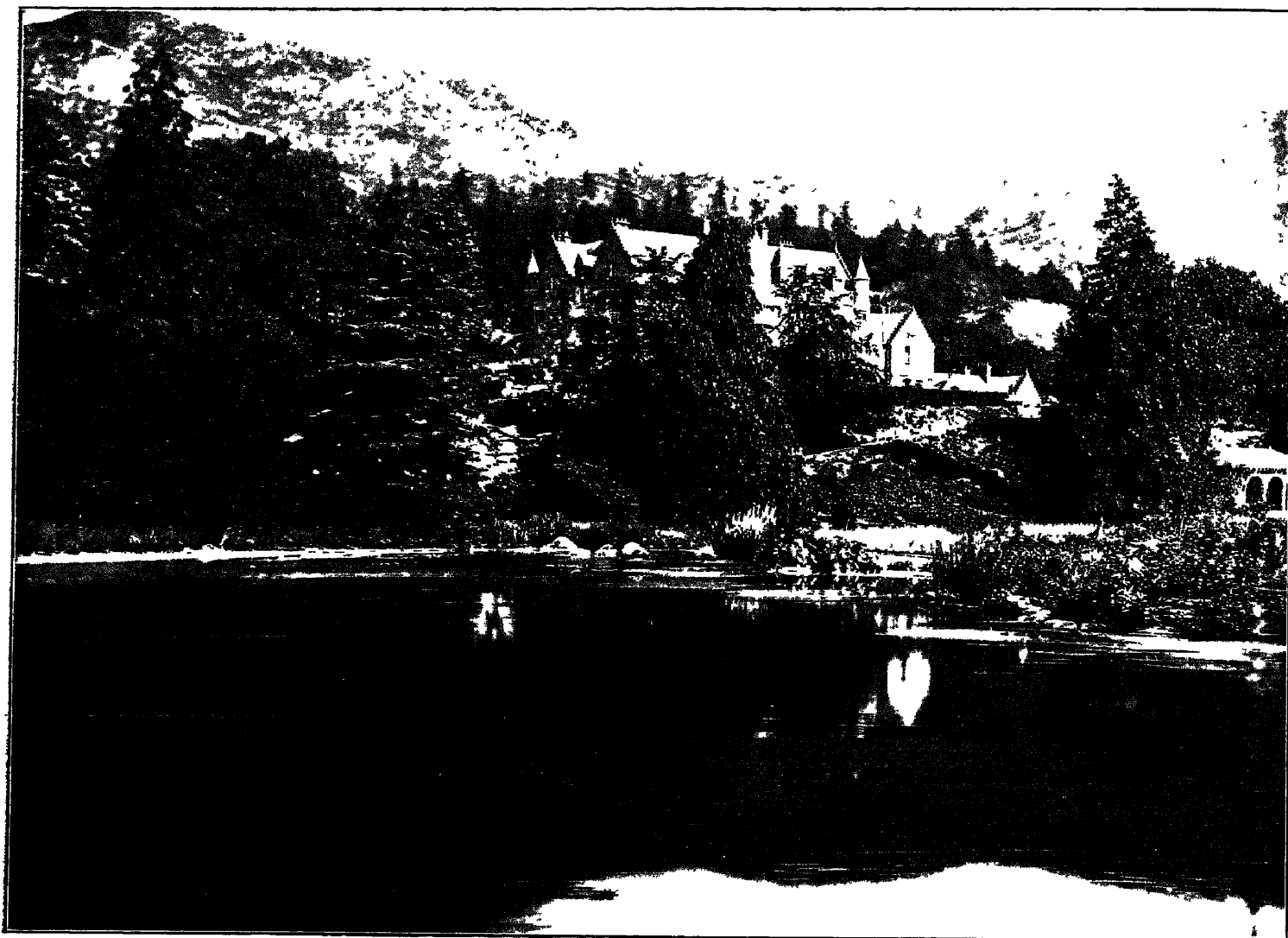


FIG. 279.—DUNIRA. THE LAKE LOOKING SOUTH-EAST TOWARDS THE HOUSE.

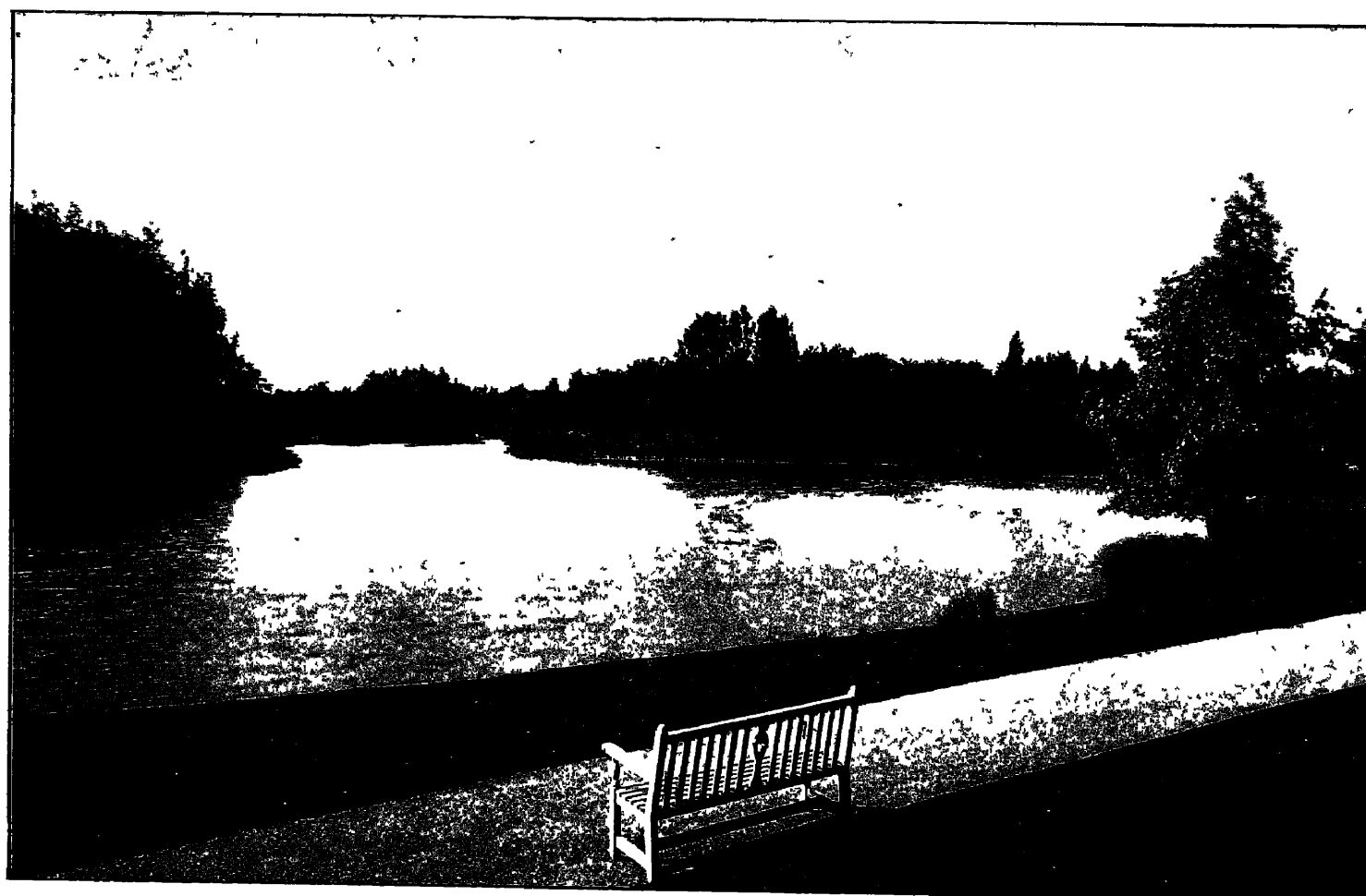


FIG. 280 —ISLANDS ON LAKE AT THORNTON MANOR PLANTED TEN YEARS AGO.

amount of shelter from winds, which are both factors determining the violence of the wash. The breadth of the pitching will need to be much greater at the ends than at the sides, as ripples crossing the canal will not have the force of the lengthwise ones. If the bottom is of puddled clay, it will be necessary to do the work in sections in order to prevent the clay from drying and cracking, as shown in illustration No 281.

Whatever system of construction is adopted, the water level should be kept as high as possible, say between eighteen inches and two feet six inches below the surrounding ground. Where the level of the supply at the inlet makes it necessary greatly to exceed the latter depth, the depressing effect which would otherwise result may be removed by making two small banks instead of one large one, and forming a path between the two, as shown in the accompanying section (Ill. No. 255)



FIG 281 —FORMAL CANAL UNDER CONSTRUCTION.

So far, we have dealt with formal arrangements of water for use in the more ornamental portions of the grounds, but naturally treated streams and lakes have also their place and their special charm in the outlying portions and in the wild garden

The landscape architect is often unjustly condemned for his natural treatment of water, his work being mistakenly associated with some of the absurd engineering feats of Capability Brown, or the ridiculous miniature lakes squeezed into suburban gardens.

*The informal treatment of water.*

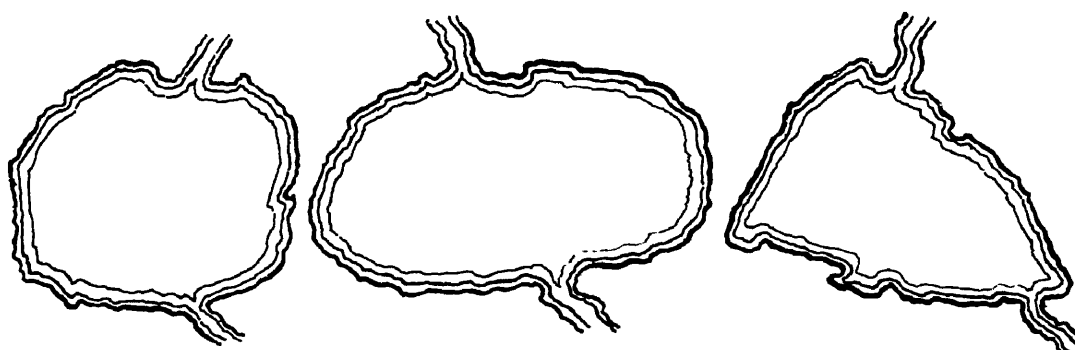


FIG 282 —LAKES IN FLAT COUNTRY WHERE THE FLOW OF WATER IS NOT VIGOROUS.

The construction of natural lakes is a subject which demands keen observation of natural facts and phenomena. It may seem on the surface that

*Lakes.*

all that is needed is to select a depression, make a dam and allow the water to fill up to the level of the contours forming its own promontories, creeks and bays, then plant it suitably and make the dam artistic, probably with rock-work, and the result is sure to be pleasing, because it is proclaimed to be Nature's work, which it certainly is not. Nor is any branch of landscape gardening for that matter, not even planting. It is as much subject to conventions as formal gardening. Natural lakes are the result of natural causes and their diversified outlines are the result of centuries of erosion and wash, which tones down asperities and deposits gravel and boulders at suitable places. In

## THE DECORATIVE TREATMENT OF WATER.

### Lakes

artificially made lakes most of these aggregates of effect have to be simulated artificially. The shapes of lakes, rivers and ponds, observable where the flow of the water is slow and of a stagnant character is distinctly different to those formed where the flow of the water is vigorous. Water with a rapid current extends longitudinally and the tendency of stagnant water is to spread out in all directions, mostly laterally, approximating regular geometrical shapes, circular, elliptical or triangular as Ill 282 and 283.

As the water increases in force and thereby is freer in its course to remove obstacles, the shapes alter more according to such shapes as Illustration, with the overflow in the direct line of the current, and not by bulgings at the sides, as in stagnant lakes

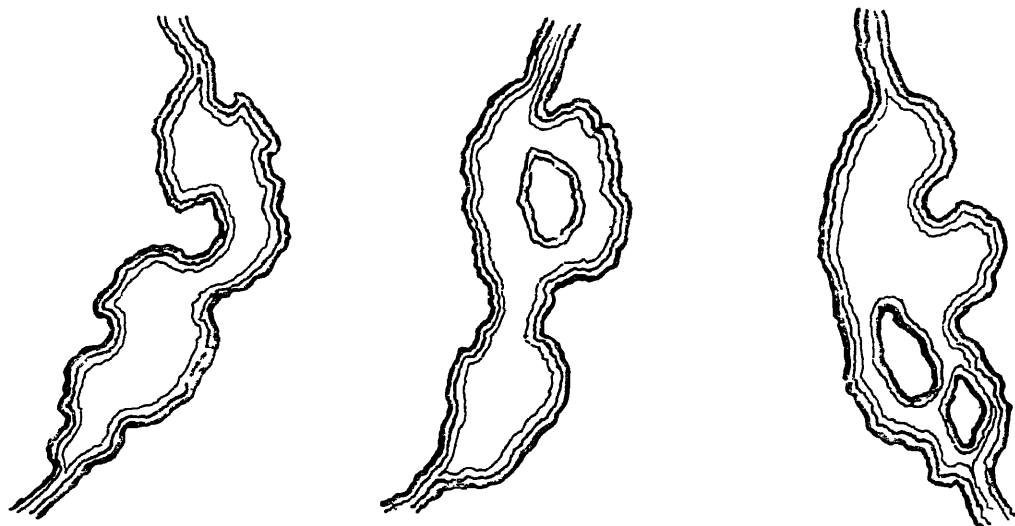


FIG 283 —SHAPES OF LAKES IN HILLY COUNTRY

### Islands.

It is from observing the flow of natural water courses, that lessons are stored for incorporation in our plans. Where there is a sufficient and constant flow of water, it is a happy idea to split the stream against a rocky projection as Illustration No. 284, and let the two branches flow on for a space and then unite them again as streams and rivers do when they descend to the plains after a precipitous descent in their higher regions. Islands may be thus formed in the flow of the stream or large rockbound promontories may be made in a lake, and the outlet formed into a series of rocky cascades with a rocky promontory as a background or setting for them such as Illustrations of Brathay Crags on page 8

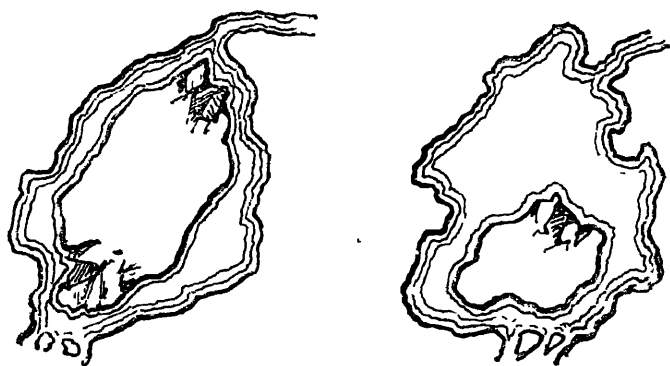


FIG 284

Islands break up the open surface of the water space pleasingly and give indefiniteness to the extent and vary the prospects obtainable.

There is never any lack of interest where there is a spacious sheet of water. Its glint and sparkle suggests life and movement. Here grow to perfection, flags, reeds, and swamp herbage in rank profusion and riot of flower, ferns luxuriate in the damp soil under the shade of the trees, moss and lichens

clothe the rocks and boulders, the fish and waterfowl combine in the harmonious attraction of eye and ear. Added to these there are the pleasures of a boat in summer and skating in winter.

The lake in Kew Gardens is the charming result of half a century of planting, thinning, and judicious selection in the plantations and pond vegetation (Ill. No. 286). Here the effect is obtained in the first instance by the outline of the lake itself, but the lake in Battersea Park shows how the same effect may be obtained by means of an island.

Tarn Hawes, near Coniston, is an example of the beautiful effects which may result



FIG. 285.—THE CANAL, FOOTS CRAY PLACE



FIG. 286 —THE LAKE, KEW GARDENS

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from simply making a dam to raise the water level and leaving the rest to Nature. By this means the late proprietor succeeded in making the present sheet of water, where before were a series of smaller ponds and a tract of swampy ground. The effect is heightened by the plantations so effectively placed in its vicinity.

The lake in the East Park, Wolverhampton, which is some thirteen acres in extent, illustrates the same principle, though in this case there was more spade work, as various small hollows were united by cutting through intervening banks. It also shows how a beautiful result may be obtained under the most unpromising conditions, for it was formed from a series of spoil banks or pit mounds. The fact that there were several old pit shafts on the site, necessitated that the whole area to be

covered with water should be treated with a layer of puddled clay, which in this instance was dug from the site and put through a brick-makers' pugging machine, and the surface pitched with the blocks of clay as delivered from it.

It will thus be seen that a lake formed on the slope of a hill or anywhere except in a hollow, where all natural lakes are found, can never be anything but a dismal failure, and, in such positions, should never be attempted, in such circumstances a formal pond is the only kind which can succeed. Nor is it a wise policy to place an informal sheet of water within sight of a large natural lake, a broad river or the open sea. The comparison cannot fail to be odious.

However a lake itself may be formed and designed in rela-

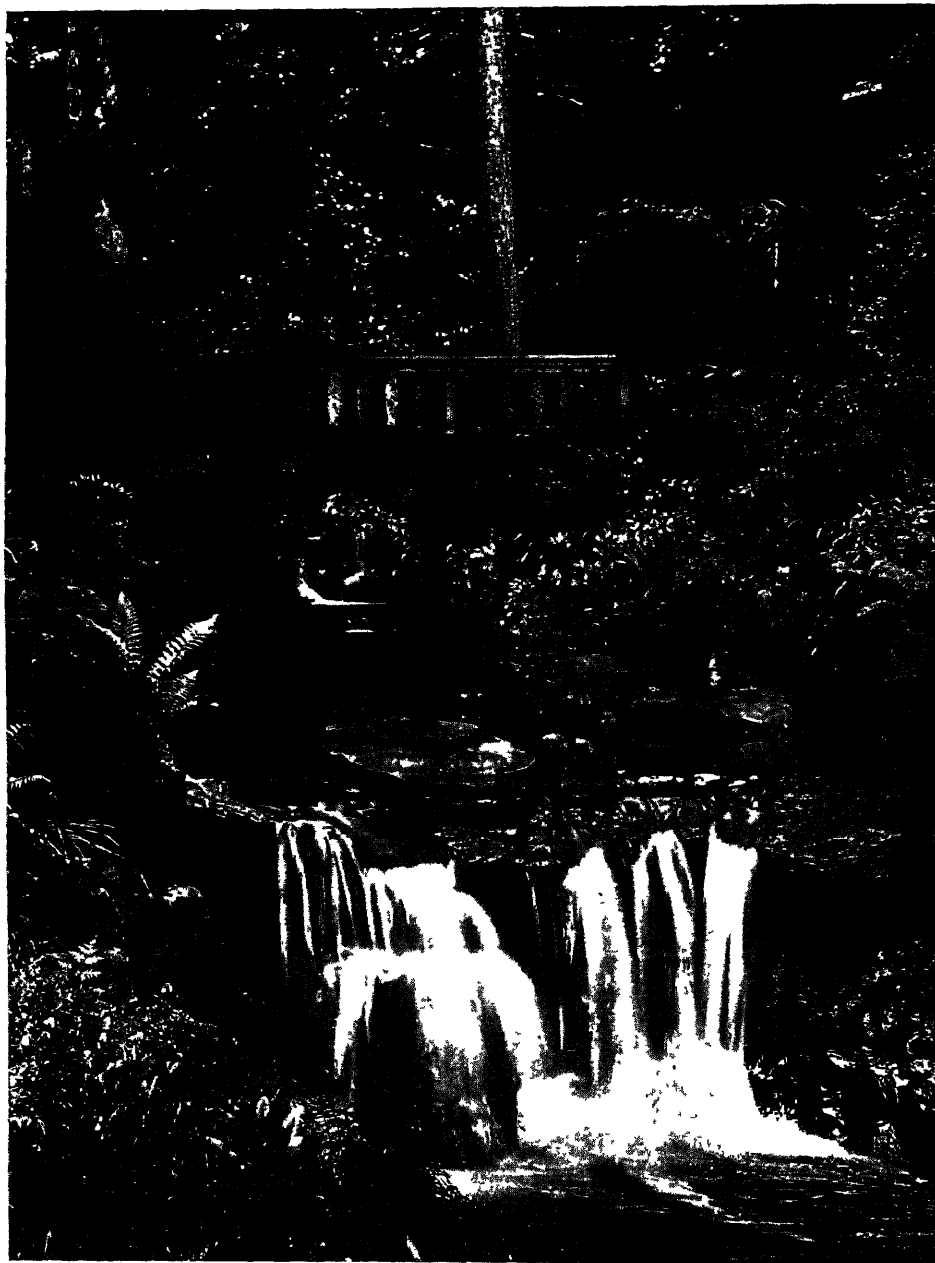


FIG. 287 —ARTIFICIAL ROCKWORK AT BALLIMORE, ARGYLESHIRE.

tion to its surroundings, the ultimate effect depends very largely upon the arrangement of the foliage which adorns its banks. The old adage, "Plant the hills and flood the hollows" is generally a safe one to follow, and if the hollows are deepened to form bays and the excavated material is used to add to the boldness of the headlands, better results will usually be obtained. The ideal to be aimed at is indicated in the photographs

## THE DECORATIVE TREATMENT OF WATER.

of the Brathay Crag, Windermere, shown in illustrations Nos. 3 and 4, and though it may not be possible to achieve results on this scale, still the effect aimed at should be the same. It should always be remembered, however, that too much foliage, especially if the supply of fresh water is small, tends to foulness.

For the higher portions of the banks, masses of Scotch Fir interspersed with Silver Birch, may be planted with great effect, but for the lower portions, Dogwood, Broom, Mahonia, Tree Ivies, Laburnum or Holly, are most suitable, and in any case due regard must be paid to colour in mass. For islands, masses of Scarlet Dogwood, Willows and cut-leaved Alders are suggested. Additional interest may be given to the margins by the tasteful disposition of groups of Iris, Lythrum, Meadow-sweet, Sedges, Bulrushes or other sub-aquatic plants, though if the water is shallow for any distance, the natural tendency of such plants is to monopolise the shallow area, thus much of the water surface is lost under the rampant vegetation.

Additional interest and boldness may be given to the headlands by the formation of artificial rocky escarpments such as naturally occur, but, of course, nothing artificial in appearance should be intruded.

Naturally-treated streams also form delightful adjuncts to the wild garden or the outlying portions of the domain; in fact the former can hardly be said to be complete without at least a tiny streamlet half concealed and half revealed among masses of luxuriant foliage.

How much can be done where a small stream is available is shown in the illustration of Ballimore, Argyshire (Ill. No. 287). Little more than a year before the photograph was taken, the stream flowed through a conduit between rough stone walls, and the rockwork which looks so perfectly indigenous was all placed there by the hand of man, and the laminated strata in imitation of the masses of native rock. The ferns and other native plants which vegetate the rockwork were collected from the surrounding woods.

The other illustration of this class of work (Ill. No. 288), is the rocky stream at Mount Stuart, formed for the late Marquis of Bute under the author's supervision.

Originally it was a swamp, trodden into disagreeable mud by cattle, there being some small pieces of natural rock in places which formed the basis of the work as illustrated. The volume of the water was increased by efficient drainage of the higher ground further up the stream, thus rendering some form of protection for the banks necessary. In many cases this would have been effected at the expense of all natural beauty by clearing away the trees and stubbing the undergrowth of brambles, honeysuckle, gorse and broom, and destroying every natural charm left after the depredations of the cattle.

Instead of this, the opportunity was seized to bare the natural strata of rock, form rocky pools, and heighten the little cascades with new strata, protecting the banks with rocks and boulders and planting the clayey bottom of the pools with iris, and sedges. The banks on either side were already somewhat sparsely clothed with undergrowth under the beech trees shown in the photograph, and by the addition of many native shrubs and bushes, they were given a luxuriant covering.



*Streams.*

FIG 288.



## THE DECORATIVE TREATMENT OF WATER.

### *Streams*

Both here and at Ballimore the stone used was gathered from the surrounding plantations, and where the surface was weathered or covered with moss; this was carefully preserved, with the result that the work had not the aggressive newness of artificial rockwork. Fissures or "pockets" of earth were also purposely formed in the rockwork, which were planted with the ferns and wild perennials which abound on the estates.

An effective stream can be made with the tiniest flow of water if it be properly manipulated. Satisfactory effects have been obtained where no stream originally existed, and the whole supply has been collected by draining pasture land at a higher level than the gardens. The secret of success is never to let the water trickle to waste, but to arrange it in a series of large pools with falls between. The smallest fall makes a brave show compared with the same amount of water sipping amongst stones, and the pools suggest a larger supply than may be actually present.

The practical detail of most importance in the formation of artificial rockwork, where cement is requisitioned, and especially where the pools are lined in cement to economise the water, is prevention from damage by frost. In such cases it is safest to place the work in the hands of a professional rock builder whose past work has shown him to possess the necessary artistic discrimination for his task, and who does not fall into the common error of overdoing the amount of rock.

The planting of rockwork is dealt with in the next chapter

### *Boat-houses.*

Although few domains possess a sheet of water large enough for boating, this chapter would be incomplete without reference to boathouses and water pavilions, for there are many lake-side and river gardens which require these adjuncts.

Boathouses vary in design and accommodation, according to circumstances, from a simple shelter to accommodate a rowing boat, a couple of canoes, or a Thames punt (Ill. No. 289), to the erections required for launches and yachts on the English Lakes, and need wet and dry docks. Where the accommodation is ample to expand to a properly proportioned building of two storeys, a tea-room quaintly built into the roof with a broad outlook over the sheet of water, cannot fail to be appreciated. In the winter, too, when not required for its more legitimate purpose, it may be used for storing and redecorating the boats. It should have a fireplace, if possible in an old-fashioned deep angle. In other cases, the room over the boat shelter may be arranged as a bathers' dressing-room, with a staircase giving convenient access to the water near the wet dock.

Rugged picturesqueness is the desideratum in building boat-houses and similar erections with deep shadowy recesses planned in the wall surfaces. Rough rubble in large unhewn blocks, being such as favour the promiscuous growth of ivy and climbers. Different features combine to invite novelty, such as a yard-arm to swing the boats out of the water, which invites a protruding overhang of the roof, a balcony or a flat roof and many other uncommon suggestions invite the play of the imagination. All buildings which are to be smothered with ivy require an upstanding parapet and gable coping to prevent the ivy growing under the slates.

In a long and comparatively narrow canal, illustrated No 257, the reflections of the building in the water add to the apparent length of the canal and do not increase its breadth apparently. In order to pronounce this added length, the pavilion must have strongly marked horizontal lines to balance the lengthwise perspective.

Illustration No. 290 shews the group of buildings erected at the home end of the lake at Thornton Manor, Cheshire. This group, simple in design and economical in construction, serves many useful purposes, such as boat houses, with wet and dry docks, repairing shops and stores, and the rooms all arranged on a scale adapted to the needs of large parties taking part in aquatic sports also, for which the owner, Lord Leverhulme, catered so liberally. Such a combination of buildings would prove very useful as part of the

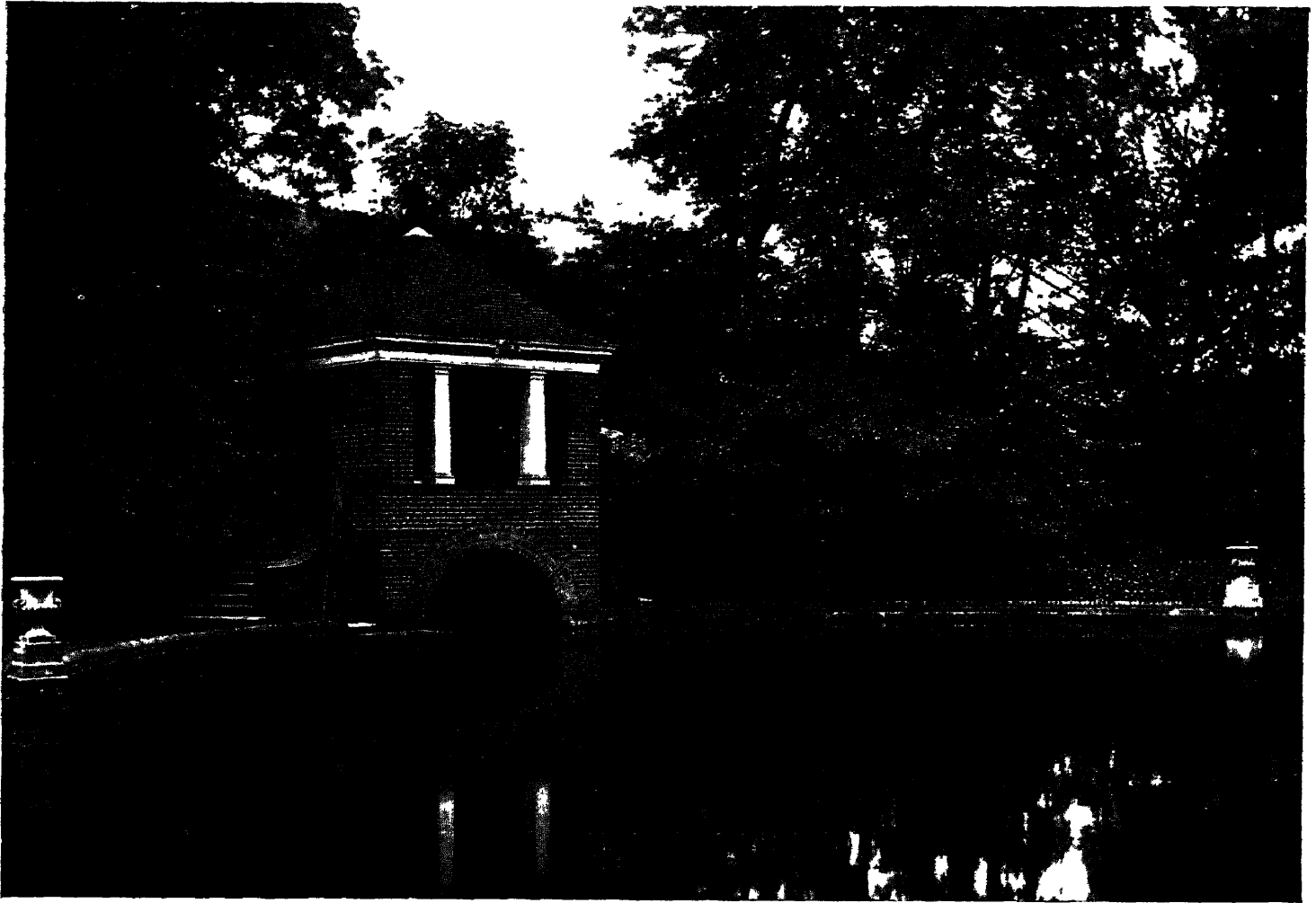


FIG. 289.—SMALL BOATHOUSE WITH SHELTER OVER.



FIG. 290 —BOATHOUSES AT THORNTON MANOR.

## THE DECORATIVE TREATMENT OF WATER.

equipment of a public park where ample provision is made for boating. The simple character of the group might often be applied to less ambitious schemes, thus avoiding over elaboration of architectural detail on the one hand, and the use of cheap matchboard and corrugated iron construction on the other, which often introduce a jarring note into an otherwise beautiful lake scene. Whenever possible adopt local roofing materials as slates or tiles, or thatch, which is suitable anywhere. Cheap exotic materials like corrugated iron and asbestos should be banned.

The Chinese water pavilions mistakenly introduced into this country a hundred years ago, was a false note. The same results can be achieved by less exotic styles of architecture.



FIG. 291.—BIRD BATH AND DOVE COTE  
AT ROYNTON MANOR.

•

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FIG. 292



FIG. 293.—TWO VIEWS OF ROCKY STREAM AT DUNIRA, PERTHSHIRE, FOR  
W. G. MACBETH, ESQ



### CHAPTER XIII.

The subject of this chapter is one to which volumes might be devoted, which, in fact, has a library of its own. Our space demands that it be reduced to three distinct headings, each of which might be expanded to include the many sub-divisions and specialized developments. Every one of these sub-divisions has its own votaries, its own exponents and methods of construction. The three main headings, however, point the way to the making of every form of gardens, in which superabundant growth on rocks, walls (and one might even say roots also) and in connection with water, have a place.

*The three main heads of the subject.*

Prim parterres set in smooth lawns, balustraded terraces giving base and continuity to the architectural features, sculptured fountains throwing sparkling water into the air to fall again from basin to basin, lakes and water lily ponds mirroring the sky, we must have, if our garden is to be complete; but these alone can never satisfy the all-round garden lover. He longs also for the free and wild, for a seclusion where flowers and plants grow in rank luxuriance and riot, or where the mossy boulders lie piled in romantic abandon, or combine to form a cool grotto overgrown with ferns, where the patch of rich brown bog conceals the spring amidst the profuse growth it has engendered. As a race, we long for the solace of the quiet country ways such as caused Gilbert White, a hundred years ago, to write of the two rocky hollow lanes of Selborne which delight the naturalist with "their various botany." The chequered sunlight filtering through the overarching foliage, covers the green carpet with a filigree pattern; the grassy ways between tall hedges of hazel and dogwood, whose supremacy is disputed by tangles of dog rose and sweet scented honeysuckle and other wildings combine to create a wilderness of greenery and colour. The deep dark overhanging rocks, with their masses of fern and the bracken brake, always make a strong appeal to those who inherit, as we do as a race, the love of the free profusion of Nature.

*The spirit dominating informal gardening.*

Fierce battles of opinion have been waged as to whether the wild garden, and gardens in general, should be for the display of the horticultural enthusiast, or whether they should be arranged with a view to the design as a whole. Many claim that in the rock garden there is the call for the care and the cultivation of individual plants—or in the bog garden, masses of plants—rather than the pictorial aspect of the rock garden or bog garden, as a whole. The horticultural rock gardener delights in finding out the exact requirements of each alpine plant, and in providing it, as adequately as possible, with its most desirable kind of rock, whether granite, slate, limestone or sandstone, and the exact conditions of sun or shade, moisture or drought, wind or calm,

*Whether horticulture or the picturesque is to dominate*

## ROCK, WALL AND BOG GARDENS.

essential to its success. It is his contention that in acquiring this, you learn to love your plants; apart from this, your knowledge and pleasure is general. The one pursuit is horticulture, the other is gardening. Illustrations Nos. 293, 294, 295 and 296, are instances where the rocks count for more than the plants and where the picturesque aspect is of more importance than horticulture. There are instances in gardens where trees and rocks are sufficient in themselves and where any planting inserted would be an unwelcome intrusion.

*Where local  
geology is  
outraged.*

In every district there is a prevalent sylva and flora and a local geology, which wild gardening ought to foster and pronounce, together with all features that are appropriate. Whenever, in the finished result, artificiality and the exotic is uppermost, the true sentiment of rock and wild gardening is outraged. A negative example might

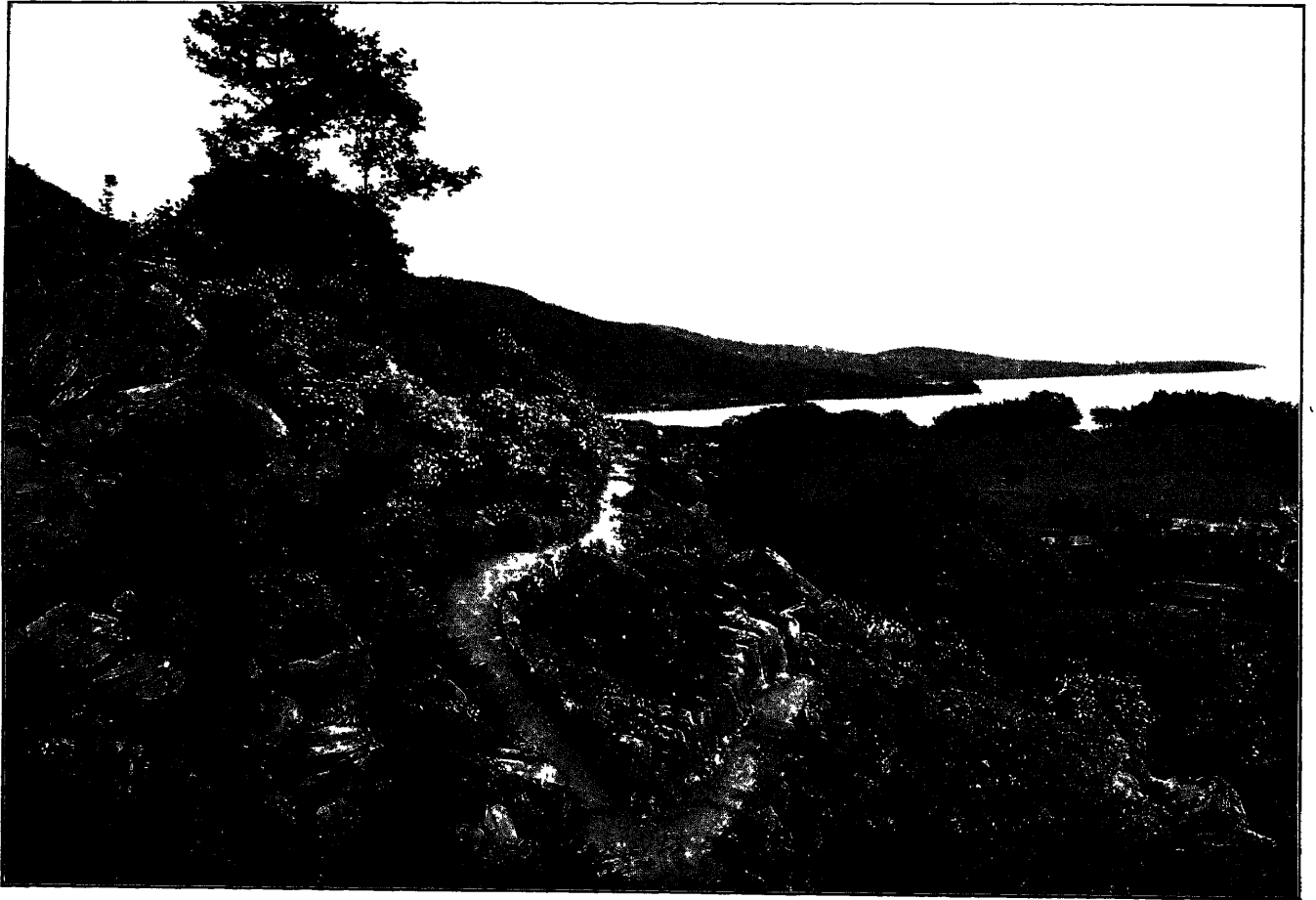


FIG 294.—DR. HOUGH'S ROCK GARDEN AT WHITECRAGGS, AMBLESIDE.

be cited of an Alpine garden, made in a district where the prevalent sentiment is that of Father Thames, the inspirer of the poems of Sir Thomas Denham, and of the brush of Vicat Cole, Alfred Parsons and others of greater and lesser fame. Here within this paternal Father's shades of lush meadows alternating with broad fields and spreading trees, has been imported 7000 tons of stone and grit from Yorkshire, covering at least three acres. If in a district suited to it, say Derbyshire or Yorkshire, where the stone is native, the achievement would be worthy of the energy expended upon it.

*The  
inspiration  
of Alpine  
gardening.*

Rock gardens ought to have, above all things else, a definite plan, and should aim to reproduce some particular phase of nature. In the Alps, from whence the idea of our Alpine gardens is said to be imported, the wealth of floral display is inset amongst bold high rocks and large boulders interspersed with low shrubs snugly shouldered in with Spruce and mountain pines, with the snow-capped mountains behind, and it is

## ROCK, WALL AND BOG GARDENS.

this foreground and background which imparts the sentiment to the flowers. Minus this or other picturesque and suitable setting, an alpine garden is tame, and worse, it is oftentimes a disorderly heap of stones, not in the least inspiring, however pleasing the plants are individually. To an artist, many rock gardens are just gardens of samples, expressive of labour. There is no intention to discard alpine or any importations which we must rely upon to vary our limited native *sylva* and *flora*, the art is in coyly weaving them into our native stock and adroitly including them unobtrusively into our homely scenes in such a way that they bear the national stamp. Pope says poetically, that all the seeming chance and the kick and fling of nature is "but art unknown to thee" All nature's wildness in the seeming rocky debris piled at the foot of the mountains and in the rounded boulders in rivers, tell the same story. Storms of every kind, earthquakes, cataclysms of nature however lawless and disastrous they seem, are all harmonious notes in the song of creation

Fortunate is he whose domain includes a fairly steep hillside, with a slope towards the south, as in the case of Dr. Hough's garden at Whitecraggs, Ambleside (Illustration No. 294) and at Craigside, Rothbury, Northumberland, the residence of Lord Armstrong. In both these instances there is a rugged grandeur to commence with. If there is a stream coursing down with a pond or a sedgy swamp at the bottom, so much the better. In mountainous districts, there is usually a natural outcrop of rock, and such sites are not difficult to find, although not always with the right slope. The Japanese cunningly contrive their streamlets and ponds in every garden with water-worn stepping stones and rocks interspersed with their miniature aged pine trees. Their gardens, which are wholly artificial, conform to one of several national conventions, and they, along with their planting and equipment, have a religio-natural significance. We can borrow ideas from their art and their simulation of nature.

The French, who are nothing if not heroic, have to shew in the Parc de Buttes Chaumont, Paris, a piece of artificial rockwork built up on the top of an old quarry, which is commanding in its height and noble in effect; thus it may be lawfully inferred that even where natural rock abounds, it is not sacrilegious to heighten the effect.

If the heightening or continuation is done with a timid hand, or if, on the other hand, the would-be nature improver has nothing but boast and self-assurance to commend him, the result in each case will be accordingly either finicky or ruthless. Neither are desirable. Better let well alone. The artist gives us just that pleasing sense of scale and proportion of restraint and liberty, reserve or boldness, which is its complete accomplishment. Artists are curious people, they resent being suspected of commonplaces, yet the most striking instances of their genius are effected in making the commonplace sublime. It is just this phase which is required in rock, wall and water gardening, in fact in all gardening. Not to scour the country for the striking, curious, quaint, or rare, not to import hundreds of tons of rock, or to have spectacular waterfalls or those which only spout water when the engine is going, but to pronounce the note of "Home Sweet Home" and to seek to place everything as Nature does in its assigned place for effect and fitness.

No one need be discouraged from forming a rock garden because of lack of space. Often the rockery, but a few square yards in extent, is more interesting than the large one. Take the example of the one at Deroran, Stirling (Illustration No. 29). This makes a sweet little interlude in an odd unshapely corner, which would have been difficult to deal with in any other way, seeing that planting is already profuse all around it.

If space is so restricted that it is not possible to include a rock garden worthy the name, rock plants may still be effectively grown by an edging arrangement of boulders retaining the earth, alongside of an herbaceous border, Illustration No. 296 shews how

*Rock  
gardens on  
restricted  
space.*



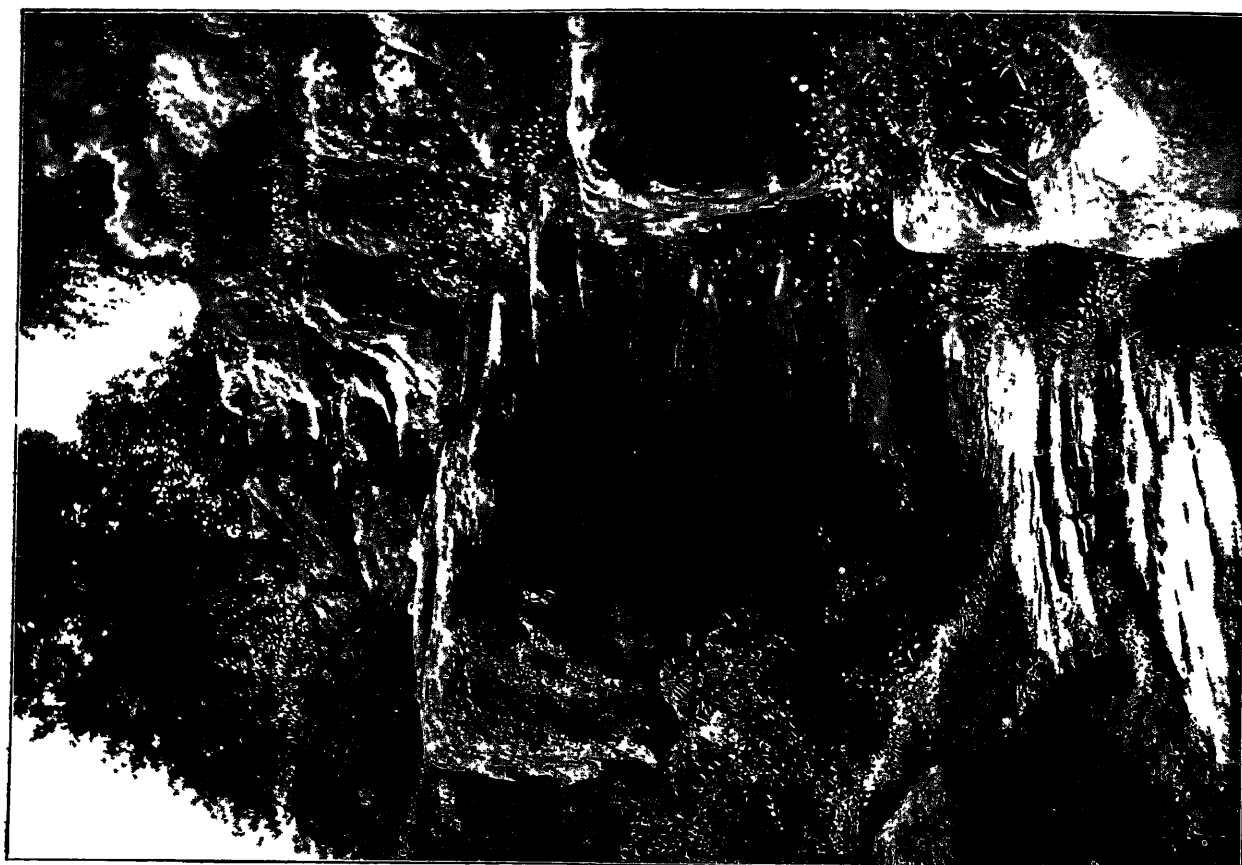


FIG. 295 —ROCKY STEPS AND BOULDERS IN LAKE DISTRICT GARDENS.

this is managed. There is clearly no attempt at imitating natural rock, the stones being placed in two regular tiers and the large through-stones introduced at fairly regular intervals prevents any appearance of steps or monotony.

Rock gardens are happiest when secluded from the purely ornamental and formal parts of the grounds by a screen of pines and dark foliaged evergreens, which act as a foil to the lighter tones of the rocks and the predominating grey-green foliage of the saxifrages and other rock plants. A few crabs or flowering thorns on the garden side will break the monotony of the dense pines

The most successful rock gardens are those where there is a natural outcrop of rock or a disused quarry to commence with, and the bared rock, with a few additional boulders or added features, is all that is required, and places made for soil beds for the plants or shrubs. Such an instance occurred in the case of Illustration No 297. All that is required in such instances, is to hew out steps in the rock and blast out a rocky pool at the bottom for aquatics, if the latter is deemed necessary. In the Lake District, and in places like Stancliffe, Darley Dale, Derbyshire, where there is a vertical cliff with little or no vegetation upon it, holes are blasted out to accommodate such trees as birch and oak, and pines which have a tendency to twisting and contortion, not the usual pyramidal forms. In another instance in the Lake District, there was no such bold front of rock, but instead quite a number of rugged boulders up and down the grounds. These were collected and arranged as Illustrations 295 shew them, as steps and margins to a hilly track.

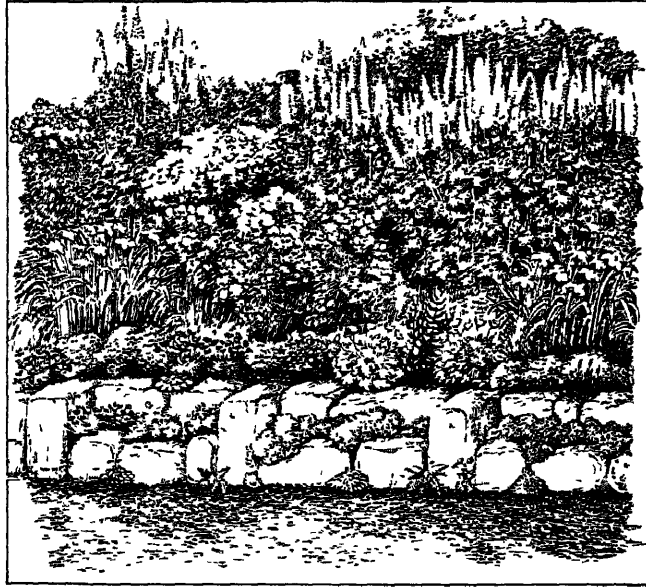


FIG. 296.

The only form of artificial rockwork which is to be commended or which can be permanently satisfactory is that made by skilled workmen who have had a special training for the work, and which is a reproduction of the indigenous virgin rock with all its strata and laminae faithfully copied, and even this should be used with restraint and caution, for the tendency is almost always to overdo it and make it obtrusive. The same, or an even better effect, can often be obtained with one or two strata jutting out of the soil which suggest hidden masses below, than when great barriers of rock are constructed. Where too much is attempted, with the idea of getting the most for the money expended, mere size is sometimes obtained at the expense of attention to detail and balanced proportion. Care should be taken that the material used does not clash with the local geology. Thus freestone rock should not be built up in a chalk district and vice-versa. In those few cases where there is any choice, it may be said that ferns prefer limestone, while American woody shrubs will die on it, though they will flourish on sandstone, which is the rock-builder's favourite material.

*Foundation  
principles  
of rock-  
building.*

All art, if we except architecture shorn of its decorations and sculpture, is either interpretation or a palpable imitation of Nature, and rock-building and planting is like architecture, in that in the main it is executed with imported material. If skilfully done, artificial rock-work is not far behind the native rock in æsthetic value. If its laminae and indentations are done by a trowel and toothed tools, they are comparable to the chisel and hammer of the sculptor. Both arts call forth admiration, because of their sympathetic appreciation of natural beauty, which is what pleases us in most arts. The test which is to be applied to artificial rockwork is whether familiarity

## ROCK, WALL AND BOG GARDENS.

with it breeds appreciation or contempt? Stagey rockwork like stagey garden adjuncts introduced into gardens, such as sham runs and sham churches, cease to please when the fraud is discovered, and convey a sense of the ludicrous

*Rock-  
building  
to favour  
plants.*

If rockbuilding was purely a matter of artistic effect, the problem would be a simple one. But it must be something more than an end in itself. The rocks are essential to the flora in that they provide shelter from cold or from excessive sun, and also the needful conditions for the roots of each colony of plants, as moisture and coolness. Beds or crannies of various sizes have to be provided for each genus of plants or for single specimens, and large ledges and fissures have to be arranged amongst the



FIG. 297.—ALPINE GARDEN ON THE SLATE ROCK OF THE LAKE DISTRICT

larger rocks for other plants, therefore their placing is a matter requiring horticultural knowledge as well as artistic skill.

*Soil,  
drainage,  
etc.*

In construction, spaces must be left for deep layers and backings of the choicest soil, the special composts, beloved of each class of plants, being placed on the top or front afterwards. There must be no vacuum between the rock faces, for dry air entering the crevices means parched roots and death. Excavate to a depth of eighteen inches where the rock garden is to be formed, so that thorough drainage may be ensured, as a wet soil at the roots of Alpine flowers is fatal to their development. Cement should not be used, except where a stream is to be formed, then the backings of the waterfalls and the sides and pools must be formed with cement, otherwise the water percolates away.

*Planting  
rock  
gardens.*

In the actual planting of the rock garden it should be gay with plants, endless in their variety of form and colour, yet it should never wear the appearance of an Alpine garden museum. There ought to be an airy spaciousness about it all. The rock garden of small dimensions, when its possessor does not aim at too much, is more effective than the bewildering museum garden. Rock gardens, and also bog and stream-side

## ROCK, WALL AND BOG GARDENS.

gardens ought always to have a number of one species of flower growing together in preference to having them distributed about the garden in association with other plants.

It is one thing to see professional rock gardens in display at the Chelsea Show, set out in glorious array by specialists, maintained for a few days at the most, artificially



FIG. 298.—POLYGONUM BRUNONSIS ON ROCK AT AMBLESIDE

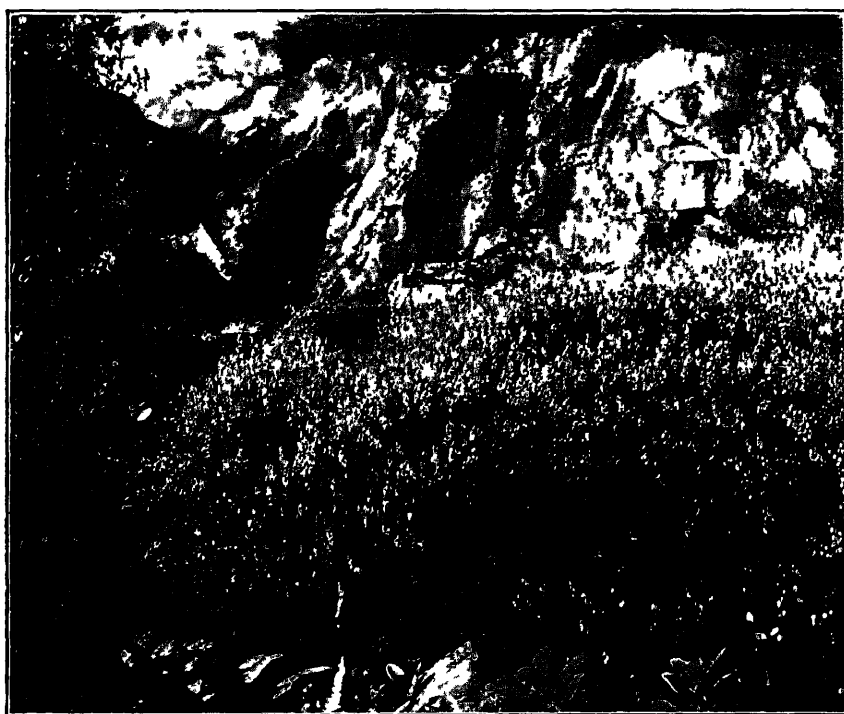


FIG 299.—WHITE HEATH AT FOOT OF ROCK AT AMBLESIDE

at the height of perfection, and likewise in those gardens where experts are kept to tend this branch of the garden, but it is another matter where the garden is maintained by the man and boy who have to attend to lawns, borders, plantations, kitchen garden as well, and consequently has to be left to itself for a week or more at a time. The way to court failure is to plant the flowers in mixed fashion close together, with the result that the strong kinds over-run the dwarf and slow-growing species. Thus it is that the wood strawberry, the periwinkle, the tormentil and such coarser plants, take possession of rock gardens originally planted with choice Alpines.

In the native home of Alpines there is nothing of the dotting system to be seen. In their own upland pastures and rocks, large carpets of one plant are to be seen inlaid with one or two other plants and thus each mantle or ledge of rock has a character of its own, resulting from the individuality of the key-note mass and its subordinates in their respective positions. The key-note of planting of every kind is always breadth and sim-

*Massed effects commended.*

plicity, equally so in planting rock gardens and walls. Here are examples of massing drifts of Polygonum and white Heath at the foot of natural rock in a garden at Ambleside (Illustrations 298 and 299). The effect is better than any mixed assortment. The opposite effect is to be seen in the rock garden where the general mixture system prevails. The same arrangement and groupings with little variation is repeated all over, so that the worst kind of formality results, which reprehensible system is so much more difficult and expensive to maintain. Weeds and interlopers are easier to detect in large groups of one kind allied in size and character. Often, in consequence of not adopting the

## ROCK, WALL AND BOG GARDENS.

*Water  
supply.*

massing system, people are tempted to plant Ivies, Periwinkle, Clematis and such like aliens amongst Alpines, one may at times see Yuccas, Cacti and tropical grasses inserted, just to cover the bare ground. No rock garden can be successfully and permanently maintained without a nursery or reserve bed to fill up the blanks and winter deaths. The massing principle must be maintained all round in rock, wall, water and all wild gardening. In all rock gardens, Alpine gardens and water gardens, the provision of a water supply whereby the plants may be watered, with a hose, is of the utmost importance.

*Wall  
gardening  
and its  
inspiration.*

Wall gardening is closely allied to rock gardening, both inspired and fostered by Nature's opulence. These incentives are derived from observing how ruined abbey and other walls are clothed with Valerian, Stonecrop, Wallflower, London Pride, Fumitory, Snapdragons and others, which mingle their hues with the moss and lichen stains, both on the top and in the interstices. It is possible to secure effects by art, which, if not so harmonious as Nature's age-long methods, are extremely pleasing in the surroundings of a home. Here, as in all other wild, or semi-wild gardening, the flowers should be in drifts, not in patches. It should not be overdone; the most characteristic stretches of the wall should be kept free from all plants. Old weather-stained walls are beautiful in themselves and it is a mistake to tear away the moss and the simple plants which make up their adornment.

*Method of  
building in  
wall-  
gardening.*

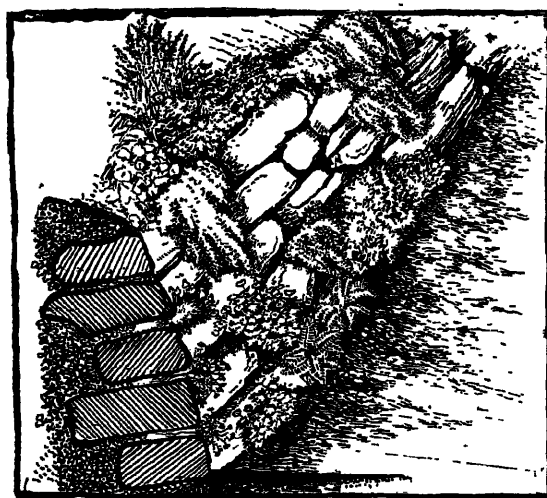


FIG 301

as indicated by Illustration No. 301. In laying each course, have a pile of leaf mould soil to hand and bed the stones with it, also between the back of the wall and the bank, leave a space of six inches at least, to be filled in with leaf mould and rotted manure, as the work proceeds. For strength and stability carry a line of longer tie stones into the solid bank. In some places where a special display of plants is desired, or a large drooping plant, or a rock shrub, considerable ledges may be left. If the



FIG. 300—STEPS IN THE WALL GARDEN

The kind of wall that is best suited for plants is that which is built against a backing of soil. Such walls are usually constructed at some place where an abrupt change of level occurs, and may with advantage take the place of sloping grass bank terraces on the lower levels away from the house. They are effective when built to a curved line, any steps required being of the same rugged character. The method of building is to take out a trench of soil, and on a hard foundation lay the first course of large fairly flat stones. Upon these lay the second and consecutive courses, slightly tipping their fronts, to conduct the moisture to the back, each successive course being laid further back than the one below, in order to catch and retain the rain

wall is a self-supporting one, with no bank of earth behind it, it should be built with an internal filling of soil, with the bottom considerably wider than the top and plenty of through stones, bedding the stones in soil as before, allowing plenty of open spaces between the coping stones on the top for plant life, or holes may be made specially in the coping for plants, see Illustration No. 303. At times these walls may be topped with soil instead of stone coping, Illustration No. 303

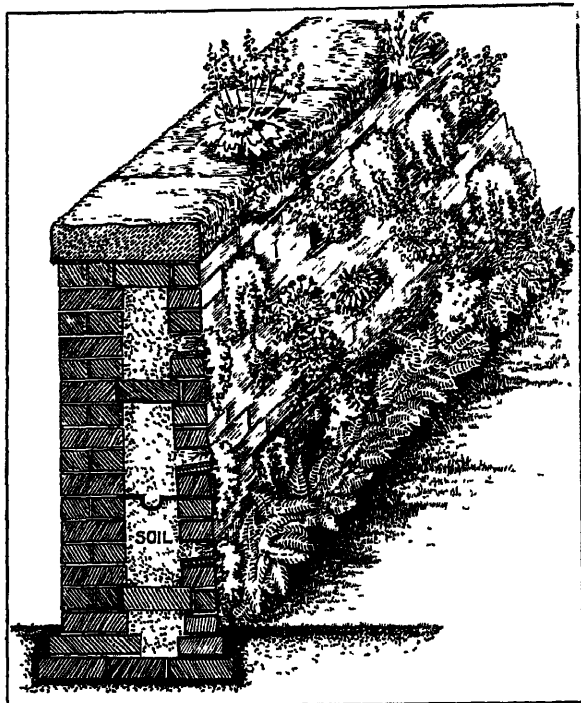


FIG 302.—BRICK WALL BUILT SPECIALLY FOR WALL PLANTS.

satisfactory than stone walls, even when they are built with a view to being planted, but when already in existence it is not wise to cut out much of the brickwork. Certain odd corners of the bricks may be cut away, and the top of such walls may be utilised, but otherwise they are best left alone. Ruin and decay set in soon enough without inviting it. Old mortar in the joints and on the top is kind to certain plants, such as *Linaria corydalis lutea*, *Erinus Alpinus*, Wall-flowers and Snapdragons, as well as certain smaller ferns. In preference to cutting holes into a brick wall it is better to rely upon making a feature of the base or use them as mediums for climbing plants and climbing roses, which again need to be treated with due caution and severe cutting each year, or else they sag the wall, or even sway it over. When a brick wall is specially built for wall plants, it is best left hollow and filled with rich soil, holes being left in the brickwork where plants are required, see Illustration No. 302. Holes may be left in the coping as shewn in Illustration No. 303, and such things as *Dianthus*, *Lithospermum* and *Aubretia* flourish in it.

When building walls with a view to wall gardening, the majority of the plants are better inserted, as the walls are built, the roots can then be laid along and covered with soil and directed to the filling of soil. But as many of the flowers which adorn our walls are not perennial, seeds will have to be sown in the chinks and vertical fissures, preferably in late April or the beginning of May

When it is a case of accommodating an existing wall for plants, the preparation is done with a long chisel driven with a downward slope into the crevices and joints, dislodging the mortar and chipping off pieces of stone or brickwork without endangering

When such walls are properly planted, they require little attention, every drop of rain being caught and conserved; it trickles down the stones and finds its way to the plants. In dry summers, some of the tenderer plants will need watering, and the stronger growing ones thinned out and restrained from smothering the tenderer plants

Sometimes in excavating a roadway numbers of large rounded stones crop up, or by collecting scattered boulders laying about the grounds a wall may be built entirely of boulders shewn on page 228. Such walls are strong enough to resist any thrust, and if the work is directed by an artistic mind the less planting that is done the better.

Brick walls are much more difficult and un-

*Wall-gardening to brick walls.*

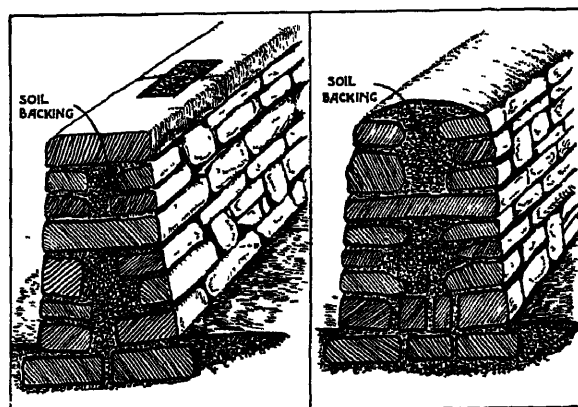


FIG 303.

*Inserting rock plants in existing walls.*

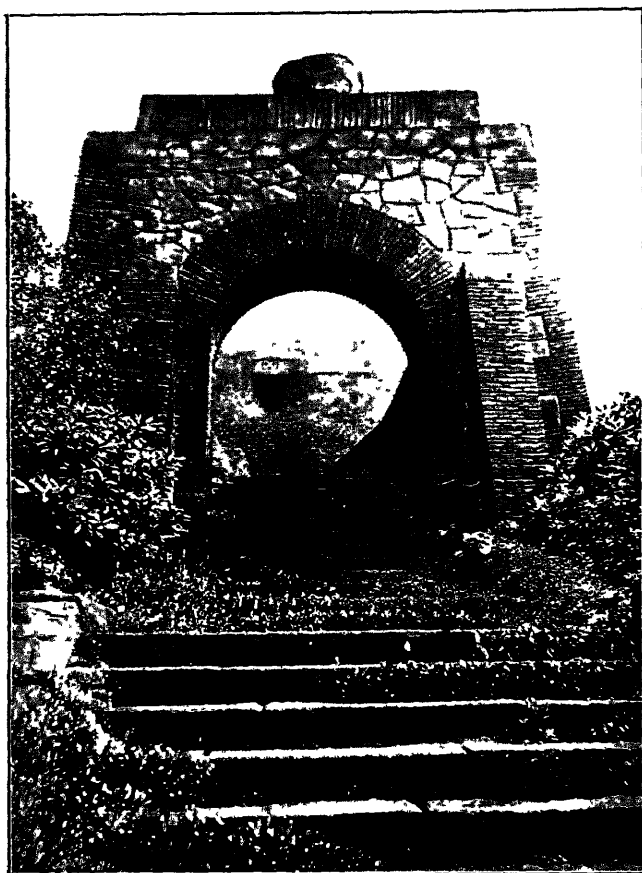


FIG. 304.—ROCK BUILT ARCHWAYS IN WALL GARDEN AT ROYNTON COTTAGE.



FIG. 305.—WALL GARDEN AT WOOD, DEVONSHIRE.



## ROCK, WALL AND BOG GARDENS.

the stability of the wall. Fill these crevices with turfy loam mixed with chopped sphagnum moss, to retain the moisture, ram it well in, afterwards wedging a piece of stone (or brick if the wall is brick) at the mouth to prevent the soil being washed out. Such walls are best sown with seeds, although certain plants may be inserted. The most practical way is to roll two or three seeds in a ball of earth and press it well into the chinks.

The problem of planting the wall is complicated by the varying aspects, and whether it is overshadowed with foliage or only backed by it. The aspects which suffer most from the full blaze of the sun are the worst to maintain, the east being the best, and the west fairly good.

To name the many varieties of plants which flourish on walls in the spring, summer and autumn rotation, would require more space than can be devoted to it in a work of this kind. For a beginner it is policy to note a few varieties which succeed locally and plant them, adding others which appear suitable and adapted to the position they are intended to occupy. If the harebell flourishes in the district it

may reasonably be inferred that the various kinds of its kindred campanulas will be at home. If the common ferns or bracken thrive in the district, then it may be inferred that ferns will be at home. Avoid forced or coddled plants. All lists would be inconclusive, because the question is cross multiplied by the varying aspects, and whether in each aspect there is full

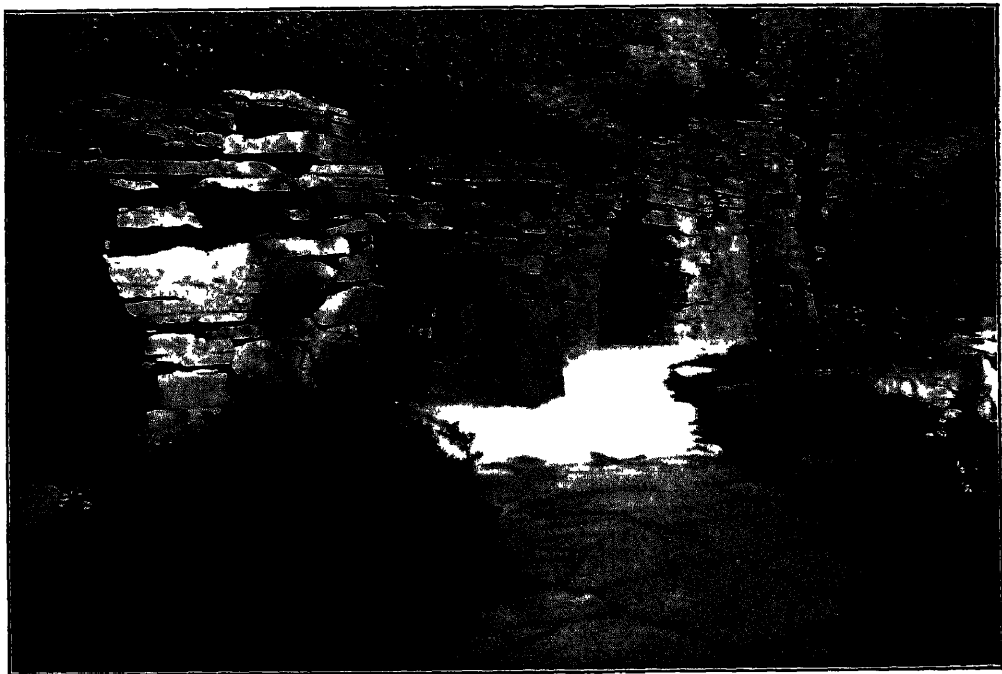


FIG 306.—GROTTOES IN ROCKY DELL AT ROYNTON COTTAGE.

or partial shade, and the particular latitude in which the wall garden is situated. The winter appearance of a wall garden and also of the rock garden is worthy of consideration. There are certain evergreen plants, such as Lavender, Rosemary, *Arabis alpina variegata*, Sedums, Rockfoils, *Dianthus caryophyllus* and *D. dependens*, together with *Cotoneaster macrophylla*, *C. Simonsi* *Cratægus Lelandi* and others, which if planted along the base and in the wall, harmonize well with the prevailing grey of the rock or wall and the mosses which are the best at this season.

The paths which pass along the base of the wall gardens, or through rock gardens, are effective when paved with irregular crazy paving, rather large flat stones laid in soil and sand. They may have the interstices clean, or they may be inset with the smaller and neater varieties of rock plants. The steps also may be treated similarly, as shewn in Illustration No. 300. Frequently we see them overdone with tall vegetation, thus making the walk anything but comfortable and inviting. The primary use of the path should never be lost sight of, and for this reason alone the planting should be sparse in the middle, even if a little more profuse at the sides, and the paving stones firm and rather large. Where there is a border at the foot of the wall, the irregular edging made by the flowers along the path, is equally effective on a gravel walk as on paving.

*Paths in  
rock  
gardens.*



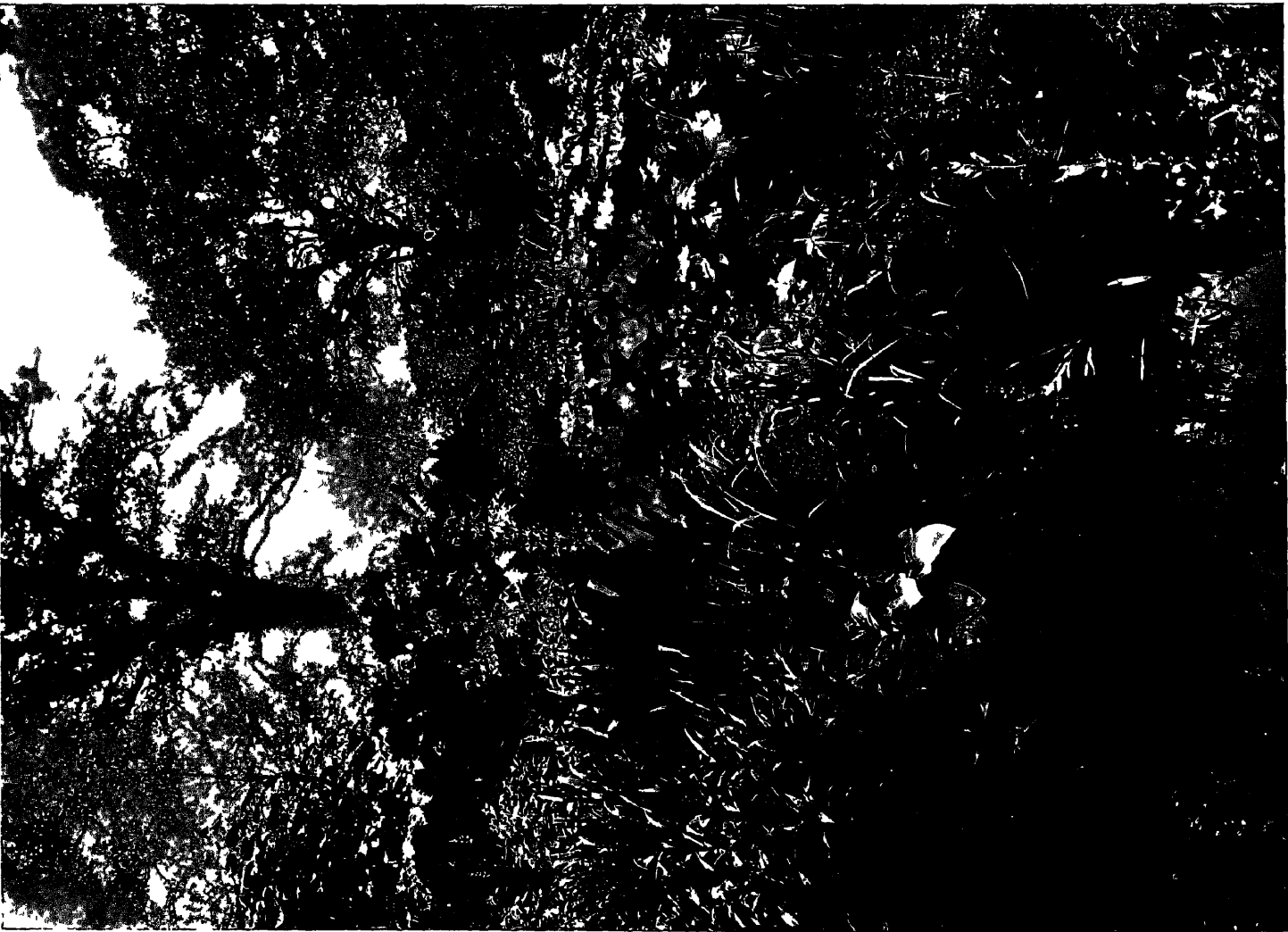


FIG. 307. BOG AND WILD GARDENS AT UNDERLEY HALL, KIRKBY-LONSDALE

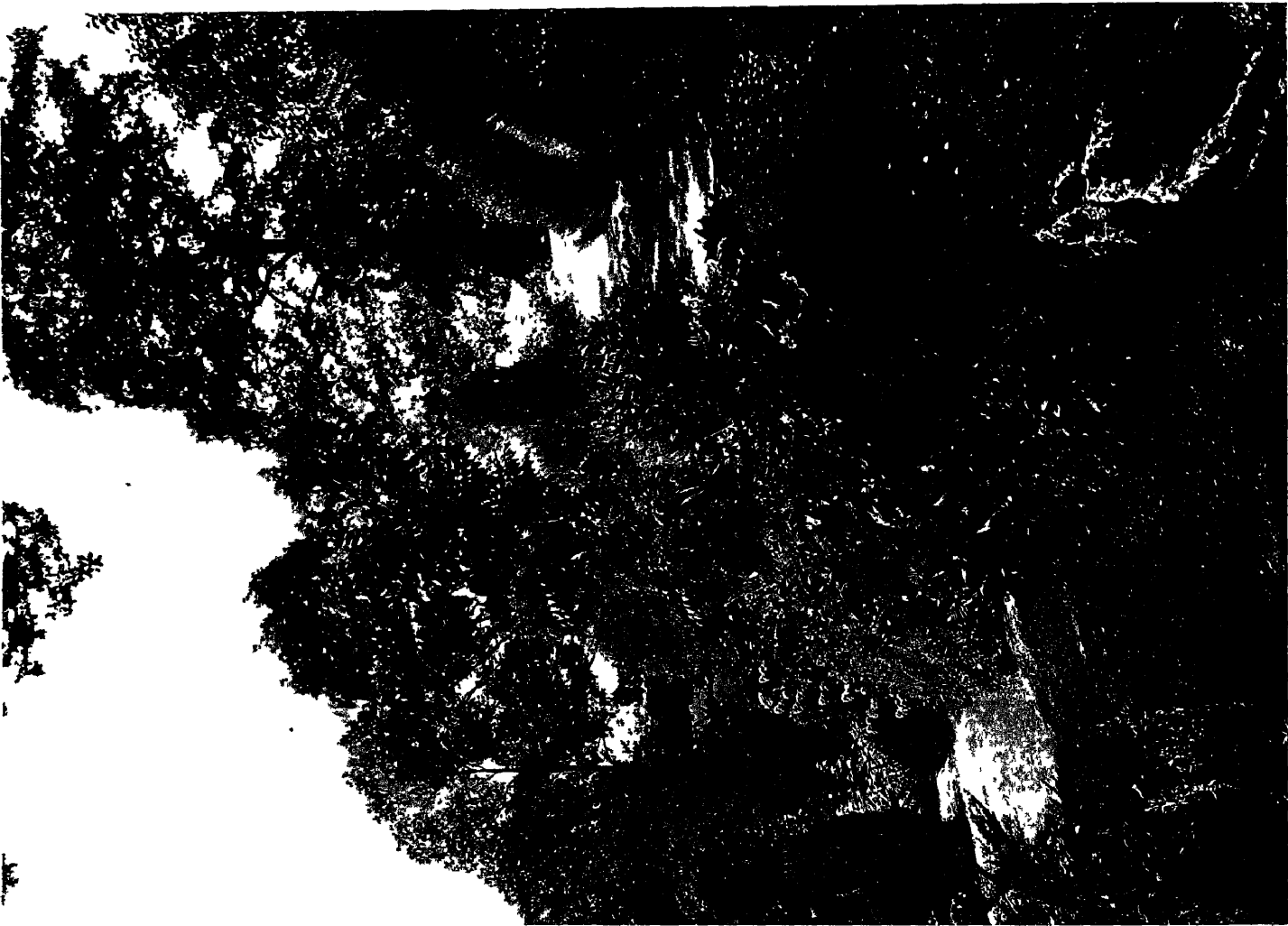


FIG 308.

## ROCK, WALL AND BOG GARDENS.

In executing a rock garden or a wall garden, it is often easily possible to construct a grotto or cavern for filmy ferns. If the grotto is to serve the purpose of a *Grottoes and caves.*

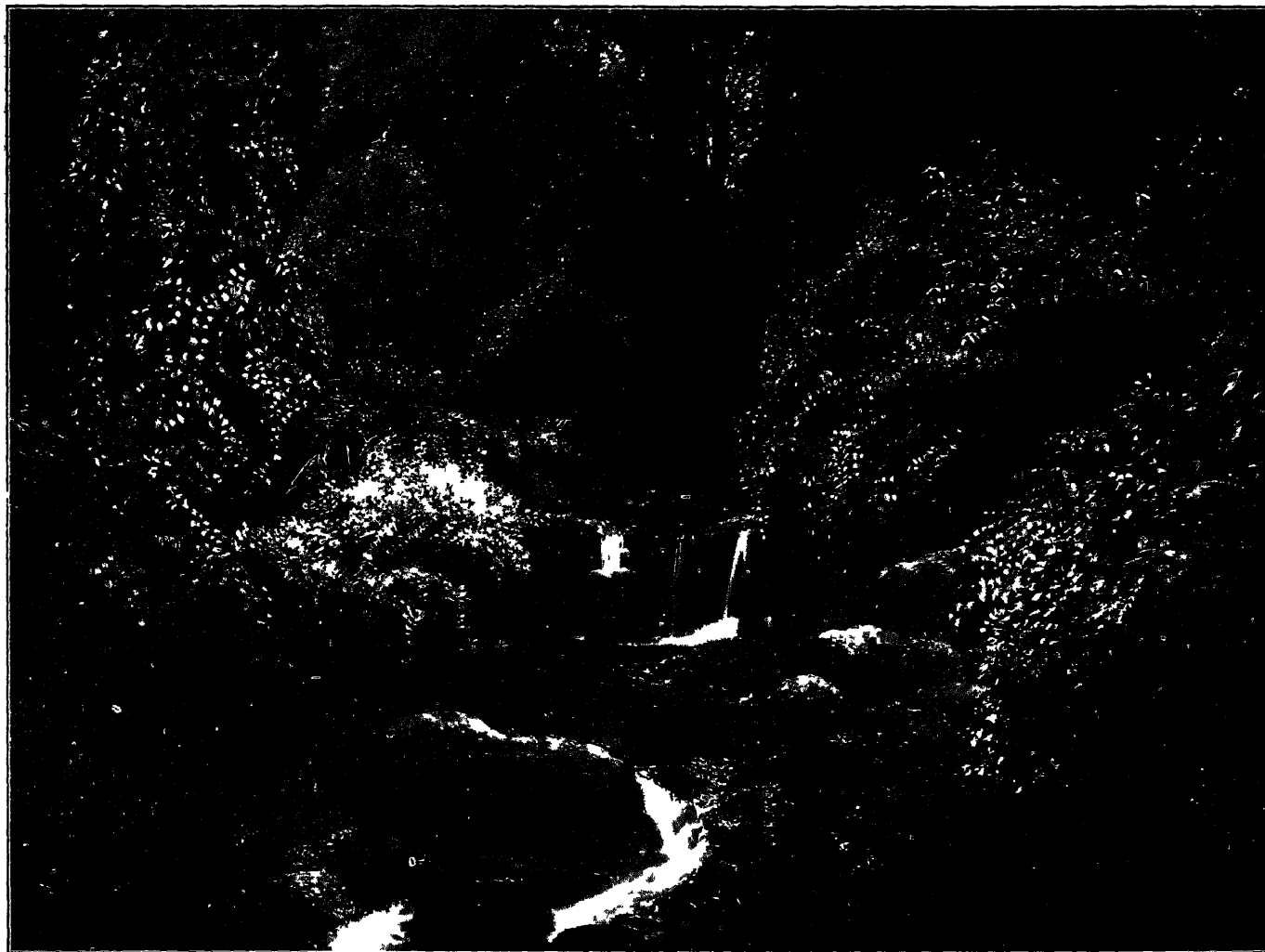


FIG. 309 —LUSH VEGETATION BORDERING ROCKY STREAM AT BALLIMORE, ARGYLESKIRE.

cool retreat during the dog days, it must be dry, but if it is to be a fern cavern, it must be damp, if not actually having a drip. Sometimes such caves may be



FIG 310 —STEPPING-STONES IN BOG GARDEN

with ferns and wall-loving alpines. The arches shewn in Illustration No. 304 were constructed across the path to frame in the vista.

contrived in the bank, when a walk has to be cut in or sunk several feet below the level of the ground. At Roynnton Cottage, the residence of the late Lord Leverhulme, there are several grottoes or caves with seats inserted. These have been made by removing the earth to a depth of six feet or thereabouts, which has revealed the already formed natural grottoes in the sandstone rock. The effect of the natural rock has been heightened by roofing them with rock-built strata (Illustration No. 306).

In the same way arches of rockwork may be fashioned with selected pieces of rock wherewith the rock-garden is built, and then planted

*Arches of rockwork.*



FIG 311.—ROCKWORK ON ISLAND PROMONTORY ON NEWLY CONSTRUCTED LAKE.

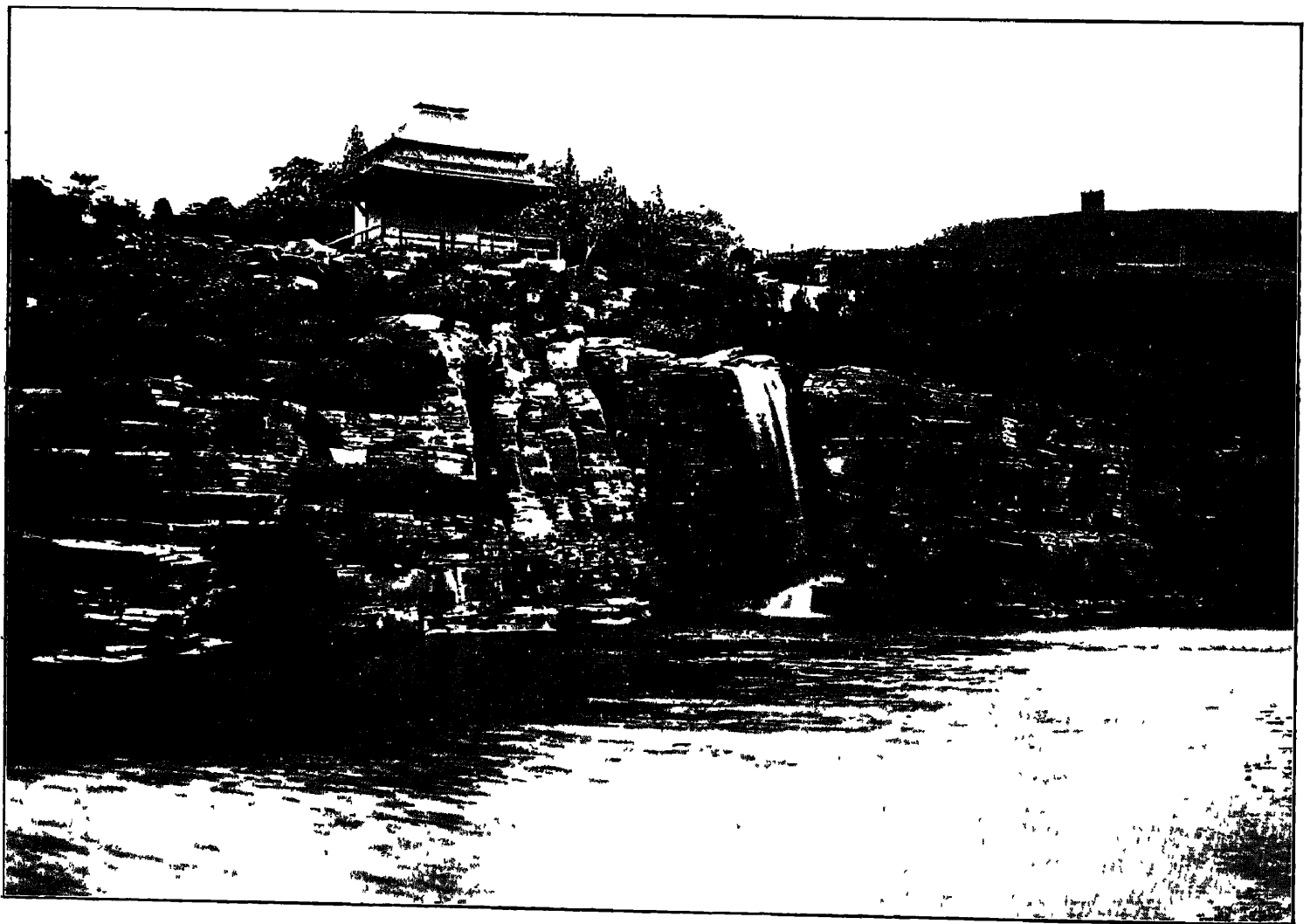


FIG. 312.—LAKE AND ROCKWORK IN JAPANESE GARDEN, ROYNTON COTTAGE.

## ROCK, WALL AND BOG GARDENS.

Unless water accompanies the rock garden in some form or other it never appears complete. The mind reverts to the cascades and pools; failing these it craves for a lily pond or a bog garden, or a moraine.

*Water accompanying rock gardens.*



FIG 313

The latter is an attempt to obtain the conditions in which many alpine plants luxuriate by securing for them a certain amount of continuous moisture underneath, so arranged that it can be regulated and the soil kept constantly and uniformly damp, without being stagnant, but always well drained. It is very difficult to maintain the natural conditions of the alpine streams which are steadily fed by the melting of the perpetual snow, but it is simulated by growing the

plants on soil beds, placed on layers of fine stone chippings; above these the soil is moistened from beneath with a pipe and controlling tap. A moraine garden is a feat for a don, and is too expensive and difficult for the majority. A lily pond yields a much more pleasing return for a fraction of the expense of construction and maintenance.

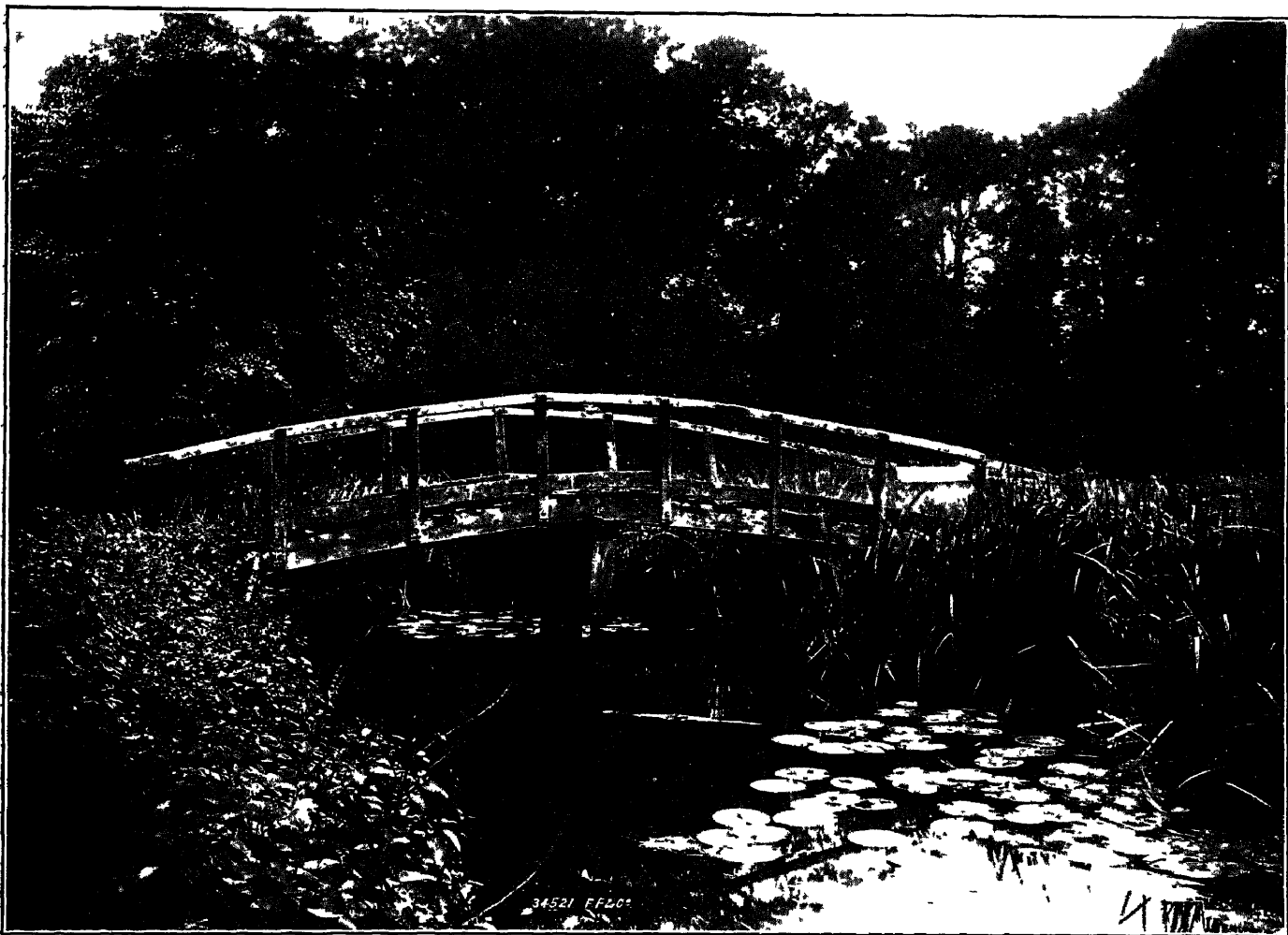


FIG. 314—THE TYPE OF BRIDGE WHICH GRACES A WATER GARDEN

But water gardening worthy the name aspires beyond a swamp pool or lily pond. Bog and streamside gardens are often spacious places where shrubs and plants are allowed to grow in their own way and shew the treatment which they most enjoy. Where any natural sheet of water is existent, whether a running stream or a stagnant pool,

## ROCK, WALL AND BOG GARDENS.

morass or swamp, it is a question of formation and planting the species and varieties of shrubs and plants adapted to the various degrees of moisture, the plants increasing in beauty and luxurious freedom every year.

If a water garden can be arranged side by side with the rock garden, the effect of both is much enhanced; but if, as mostly happens, the bog, swamp, ditch or stream which it is proposed to convert, is removed from the rocks, let it be so. The water garden can be enlivened by introducing boulders or large blocks of stone into it, or, better still, stepping-stones. Often a water lily pool can be arranged at the foot of a rock garden by blasting, or merely by cementing a few large stones to form a dam. This is worth the while. What is to be condemned are great engineering feats and wholesale importations of stone, which offend the natural sentiment of the places where they are inserted; also manufactured waterfalls where the water is supplied from the main. All such devices are costly to construct and maintain.

No one need despair of making an interesting water garden, even if one has nothing better than a deep land drain ditch, common in low-lying countries, nor need one quarrel with its formal lines. When suitably planted, the formality soon disappears. An island may be made and planted with willow, iris and spiraea, or the formality may be maintained by planting a line of willow at one side set in grass walks, and a free yet restrained scheme with flowers and foliaged water plants arranged at the other side of the water.

If there is a shallow stream with pools and an ample depth of peaty soil, this is ideal. Nevertheless, if this same stream is subject to floods, or what is equally probable with most streams, in times of mild drought it is dry, then stratagem will have to be resorted to so that the plants are not washed away or parched. Large back-water pools will have to be made to prevent the plants being washed away, and in drought some overflow water from the water mains will have to be got to supply a little moisture, otherwise the coarse tap-rooted plants, such as the giant hemlock and the water dock, gain the ground of the more beautiful ones. The water in a swamp must be made the most of, and can be made to wind about and cross and re-cross the path, either with stepping-stones or by a framed oak bridge (III. Nos 313 and 314); or a bridge composed of two rugged stone piers with a large flag footway. The bottom can be made pleasant by covering it with river-washed stones.

### *Planting of bog and streamside gardens*

The charm of such gardens is their appearance of luxuriant, rampant, and almost tropical growth which they foster. Although this may seem the easiest thing in the world, all this lush growth must be under both direction and control. The rampant unkempt monopolists must be planted sparingly and kept in their assigned place, or else they will simply worry up the less hardy and more beautiful plants. The lake at Kew (Illustration No. 286) is an example of what is effected by continual selection and thinning, otherwise the profuse growth would monopolise the whole sheet of water. Waterside planting should consist mainly of moisture-loving trees, shrubs and plants, such as Willows, Alders, *Cotoneaster salixifolia*, Poplars, swamp Oak, and several of the Barberries, particularly *B. stenophylla*. *B. Thunbergii* is most striking in its leaf colouring. Whether the willows be pollarded or left to grow naturally will be ruled by whether they are overshadowing the plants or not. The aim should be to contrive that part of the garden is in shade, another part partially shaded, and another part in full sunshine.

It is in swampy positions that trees and shrubs which give a warmth of colour from bark and stem ought to be freely planted, because they are so beautiful in winter. Notable amongst them are Scarlet Dogwood and Golden and Purple Willows, also *Salix Britzensis*. A large mass of Liquidamber glows ruddy on a winter's day, and do not omit Sweet Gale (*Myrica Gale*), well known in its wild state, and *Rubus biflorus* (white-

## ROCK, WALL AND BOG GARDENS.

stemmed Bramble), has a weird effect on a winter's day. If Sea Buckthorn is included, plant six female plants to every male plant.

The flowering and foliage plants are too numerous to detail, but amongst the best are the several varieties of Iris which flourish abundantly in boggy places, by the side of a stream or on the shores of a lake, notably the Japanese Iris *lavægata*, which may be planted by the thousand, as they may be seen in the gardens of the Royal Horticultural Society at Wisley; at places the Iris *siberica* or a mass of the golden flag Iris (*Iris aurea*) may be inserted to give variety and prolong the flowering season. There are a number of flowering plants which can be relied upon to make a goodly show. There

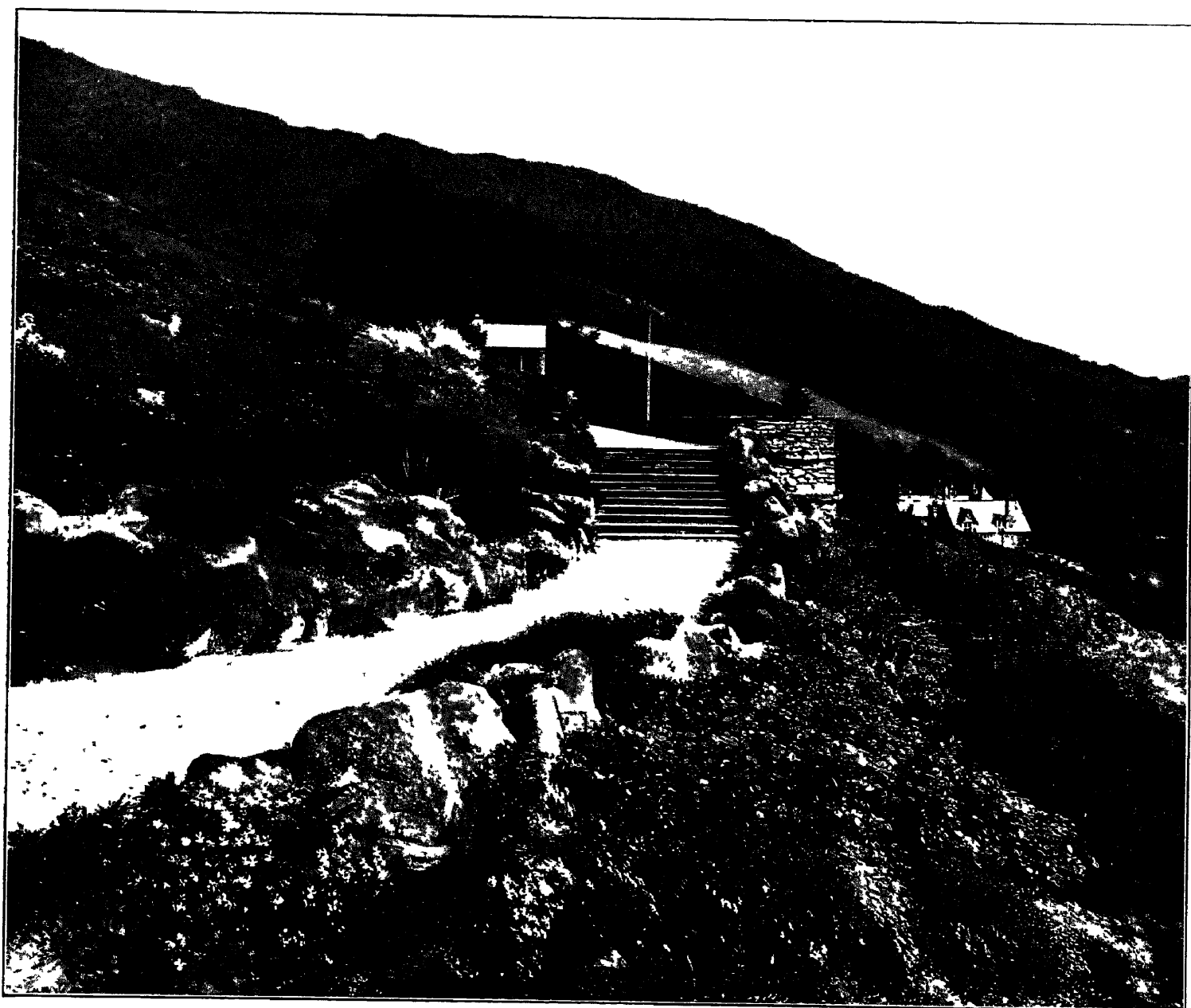


FIG. 315.—ROCK GARDEN MERGING INTO THE MOUNTAIN SIDE AT GRASMERE,  
FOR W. H. HOYLE, ESQ

is the water Forget-me-not, the large double Marsh Marigold (*Caltha palustris monstrosa* fl. pl.), the Mimulus, the wild Meadow Sweet, the Purple Loosestrife and the Spiraeas, notably the *S. Aruncus*, which always gives a good account of itself in large masses, or the pale pink *S. venusta* or the easy *S. palmata*, but the finest of all is *S. gigantea* and three or four varieties of the orange globe Trollius, or Golden Ball as it is called in its wild state

These are the elite of the wild garden and need to be made secure from the encroachments of the freer and bolder lot, which may include the giant Knotweed, the Goats Beard, Giant Meadow Sweet and such plants as are thrown out of the herbaceous

## ROCK, WALL AND BOG GARDENS

borders, as Solomon's Seal, perennial Sunflowers and the bold upstanding giant Hemlock, with its flower heads over-topping all rivals, and some of the larger ferns such as the Royal Fern and the giant Horsetail (*Equisetum maximum*) which are all able to take care of themselves in the struggle. Always plant in colonies.

It is a great mistake to plant too many varieties of plants in any space, whether the garden be small or large. In small ones a few which flourish are more effectual than many mixtures, and in large wild gardens certain portions, say every twenty or thirty feet, or certain windings of the stream, should have a limited number of plants to each. Grass, either shelving down to the water or broken at its margin with sedges and tussocks of rush, is effective in the wild garden. The eye demands its sense of restfulness and the effect of freedom is enhanced by the contrast. Here are the plants



FIG 316.—*NYMPHEA* POOL MARGINED WITH *THALIA DEALBATA*

with large leaves which are too unwieldy in the flower borders, such as the Gunneras, the Rhubarb, Rheums and the great leaved Water Dock.

It is not necessary that a wild garden should be accompanied by water, however desirable this may be. The wild garden may be given over entirely to Irises, as evidenced in the gardens of the late G. F. Wilson at Oakwood, Wisley, or it may be a spring-time bulb garden, as in Ill. No. 317, at Foots Cray place. It may be a bamboo garden—the possibilities are endless. It may be a fernery or a woodland brake, or the opportunity for such may be made by the clearing in a wood and arranging therein massings of ferns or bold groupings of flowering plants left almost to themselves, to accentuate their beauty against a thicket of trees and shrubs, and enliven their dark trunks and deep foliage. The wild garden illustrated in Nos. 307 and -308 was so arranged and planted.

In this pleasant way many uncommon Lilies may be grown and even the shy Sikkim Rhododendrons may be grown from Himalayan seed, as the late Mr. G. F. Wilson demonstrated at Wisley. Azaleas are more at home in a woodland setting than making a naked display in the open, as are almost all the Rhododendrons.

## ROCK, WALL AND BOG GARDENS.

In such a wild garden the floral display begins in January with the Snowdrops, followed by the Chionodoxas, Crocuses, Daffodils and then the Primroses, and continues on through the summer with the hardiest of the herbaceous plants and the semi-wildings, which will flourish in grass, to autumn when the tints are sufficient in themselves, and even to Christmas with the hellebores.

Another interesting off-shoot of the wild garden is the rootery formed of stubbed roots from the woodland clearings, where Roses, Pernettyas, Kalmias, Azaleas, Coton-easter, Berberis, Ferns and dwarf shrubs are happy in a peaty soil. The rootery has

*Rootery*



FIG. 317.—BLUEBELLS IN WILD GARDEN, FOOTS CRAY PLACE, KENT.

never gained interest in this country, being too often associated with fungus and a general smell of decay and listless vegetation. But in skilful hands it is a cheap and effective screen which may enclose a snug winter retreat, where screened from the cold winds the fitful winter sunshine may be enjoyed to the full. The roots may be built up to any height and arches and an arbour, such as Pepys describes in his diary may be made, forming an island at some warm dry place, with a seated recess towards the south, and an arched opening into it. The roots can be built up front or back, filling the middle with soil and planted with *Cotoneaster macrophylla*, the favourite habit of which is to grow downwards.

The most effective winter garden in Britain generally, and one which is very economical to maintain is the Heath Garden. There is a wealth and variety of *Ericas* of all sizes which are available, imported and hardy native varieties, the denizens of our moorland, that none need despair. Grouped with our most effective and beautiful evergreen, namely the Scotch Fir, even growing under the drip of its foliage, we may plant the hardy varieties, but the tree heaths require warmer southern parts of our island to develop. This is by no means a hard and fast rule, as they may be seen flourishing at Holker Hall in the Furness district of Lancashire. In cold Midland and upland districts, the tree heaths are not a success. Where it can be grown the Portuguese heath (*E. lusitanica*) is the queen, and next to it is the Mediterranean heath,



## ROCK, WALL AND BOG GARDENS

which is much hardier. In mild humid districts, such as the west of Ireland, the latter attains a height of six feet and more. Two tall-growing varieties which have proved quite hardy in the northern counties of England and in Scotland are *E. Codonoides* and *E. Siberica*; both are very beautiful when in flower.

There are other tree Heaths which are not all winter bloomers, but their foliage counts even when not in flower. These are the *E. arborea*, *E. australis*, Veitch's Heath, *E. stricta* and *E. scoparia* from France. It is not an expensive matter to test a couple of varieties of the bush Heath, and if these fail the moorland Heaths, and possibly the Cornish Heath, can be relied upon.

It is a mistake to suppose that Heaths can only be grown in peat. They will flourish in any soil free from lime and chalk in quantities.

There are a number of hardy plants which associate with the Heath, such as double, single and dwarf Furze (the single Furze must be planted in a place where it can be kept within bounds, otherwise it will monopolise the whole garden), Junipers and Brooms, also Gaultherias and the Skimmias, some of which flower in winter, and if not in flower add charm by the beauty and contrast of their foliage. Holly and silver Birch together with Scotch Fir, are at home. For variety a few *Laurustinus* may be introduced, simply because of its winter bloom, although it is an uncertain quantity, sometimes flowering in December and at other times keeping its buds closed until March or later. For the same reason the uncertain, though often surprising, Glastonbury Thorn may have a place if the area is spacious.

Heaths are happy in rough and tumble portions of the garden; they like sheltered places near the sea.





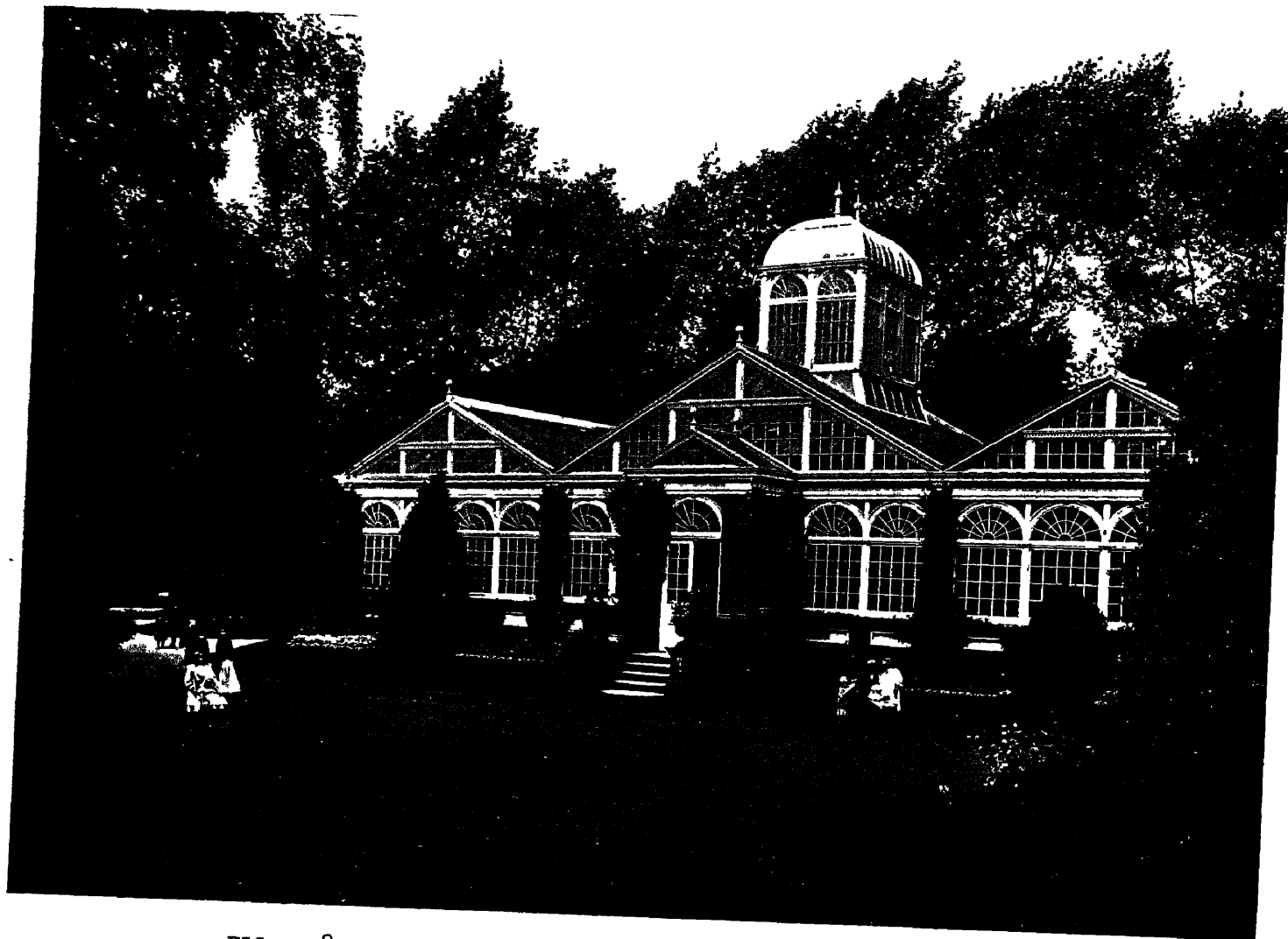


FIG. 318.—CONSERVATORY, WEST PARK, WOLVERHAMPTON.

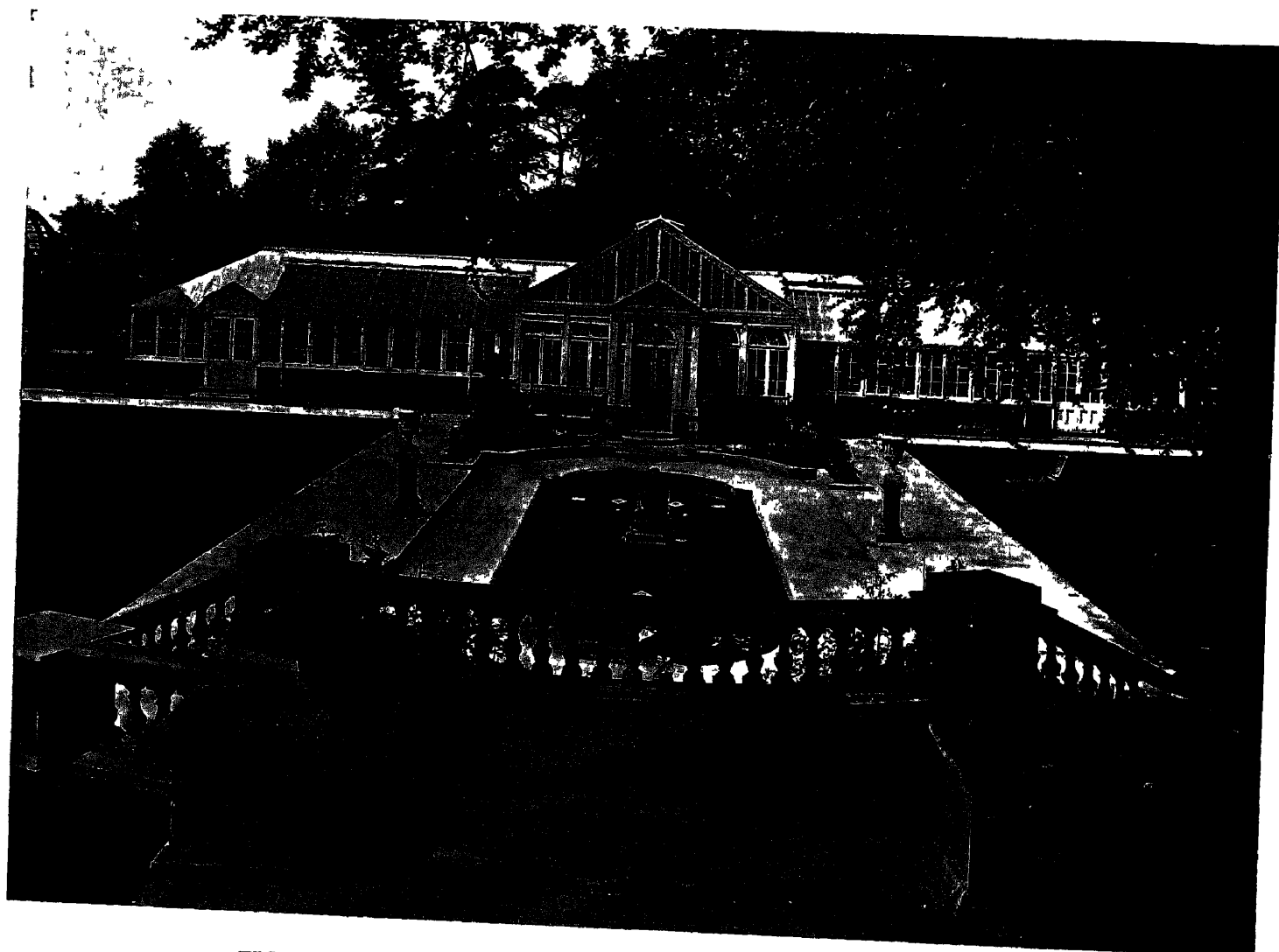
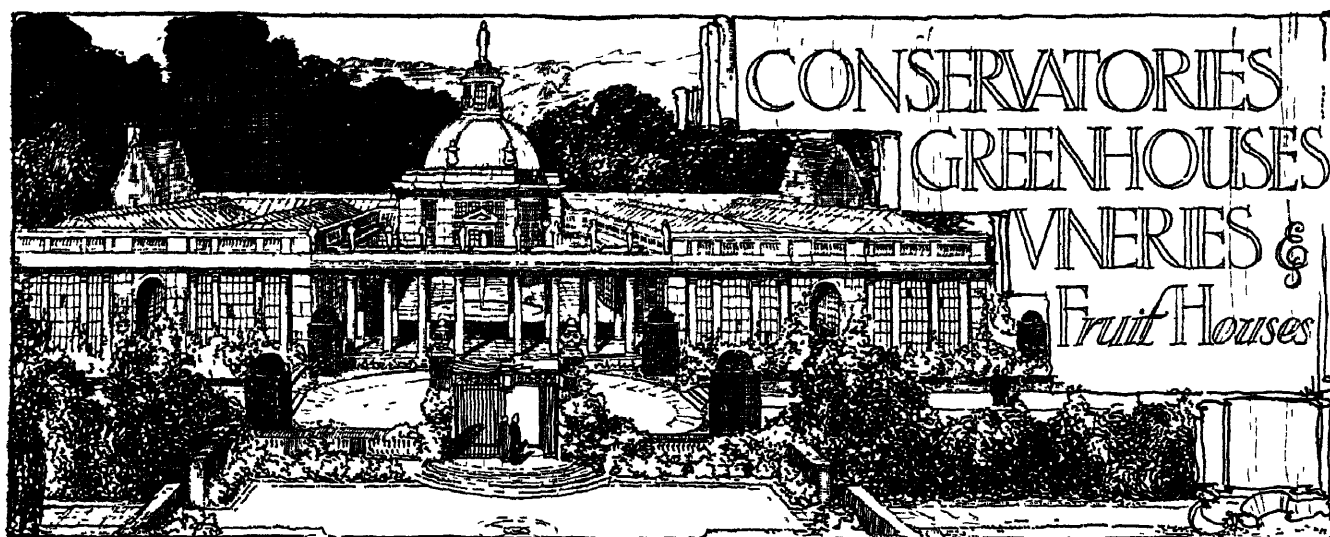


FIG. 319 —CONSERVATORY AT "THE HILL," HAMPSTEAD.



## CHAPTER XIV.

Someone made a computation of the number of men needed to staff the various parts of an up-to-date garden, reckoning that glades of trees and shrubs needed about one man to seven acres, the rock garden from five to seven men to the acre, lawns and walks about two men to the acre during the mowing season, but for some reason the glass houses were omitted. Undoubtedly glasshouses are the most expensive to staff and to maintain efficiently, but the intensive cultivation of choice fruits and flowers, and the expert specialization in orchids and other rare forms of beautiful plant life which they foster, may often be counted as ample compensation. In any case wherever there is a conservatory to be maintained with relays of flowering and decorative plants, or where there is a constant demand for supplies of cut flowers and decorative plants for the house during the winter, spring and late autumn months, a range of glasshouses become a necessity, and their design and arrangement is a matter of importance if the conservatory is to be kept bright and gay.

There is perhaps no detail of domestic architecture which calls for so much care in its design and proportions as a conservatory. Whether it is attached immediately to the residence or is placed separately and reached by a glass corridor, it is a feature which may, in capable hands, be made a useful and a pleasant adjunct to the mansion. Judging from the conservatories usually erected in conjunction with architecture of merit, it would seem that few realize that intelligent design can be applied to such structures, and that the only means of rendering them presentable does not consist in the mistaken application of meretricious ornamentation and coloured glass. If proof is needed to the contrary compare such buildings with the delightful orangeries and conservatories attached to some of the larger Georgian mansions, such as the conservatory at Belton House, Grantham, with its severely plain but exquisitely balanced treatment, or the more elaborately detailed one at Ven House, Milborne Port, Somersetshire. It is just as necessary that conservatories should be designed by a competent garden architect who understands both the æsthetic and practical requirements, as a domestic architect should be retained for the mansion, or a specialist in any other branch of design.

*Originality  
of design in  
conservatories.*

Stock designs if confined to propagating and growing houses, may not result in much harm, provided that the materials and workmanship are good, but, when intended as an adjunct to the house or pleasure grounds, it is necessary that position, planning, grouping and details should all receive consideration. They should be distinctly architectural without heaviness.

*Stock  
designs.*

The use to which the conservatory is to be put is of course the first and most important factor in determining its planning. In most circumstances, a pleasant "withdrawing" room is required, where at all periods of the year, the sunshine may be

*Planning  
the conservatory.*

## CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

enjoyed amid fresh flowers and foliage, when it will have to be planned so that it has convenient access to the entertaining rooms. In other cases, where immediate connection with the mansion is not essential, and more light and air are required than can be obtained when one side is against the house, it is often found advisable to place the conservatory a short distance away from the main block and to connect the two by means of a glazed corridor or colonnaded loggia, which in itself may be made a feature

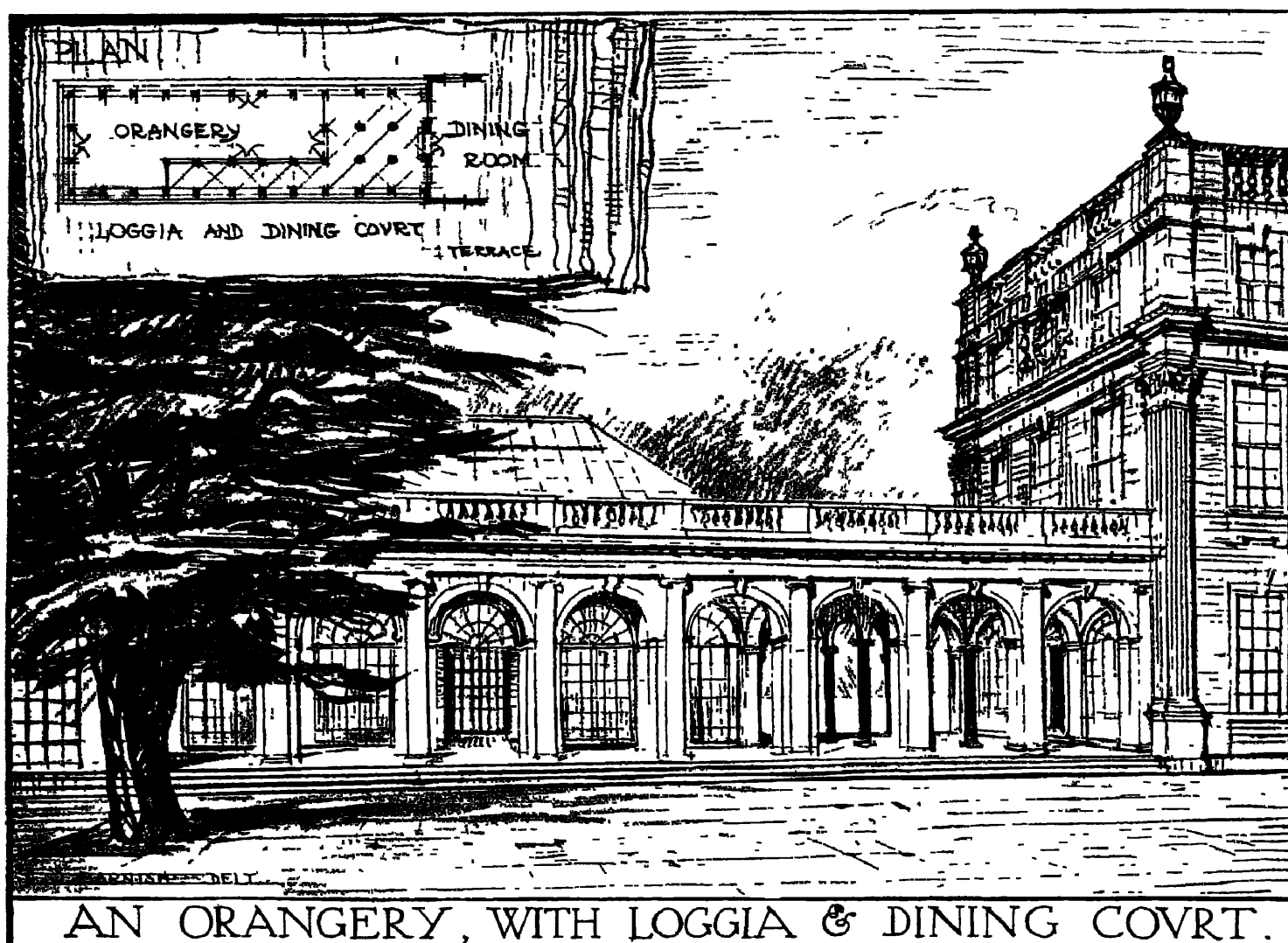


FIG. 320.

within by roses or other plants grown over trellis, and from without may provide a necessary screen from different portions of the grounds. Where it helps to enclose a cloistered or other secluded garden on its sheltered side, it may be open towards it and thus provide the opportunity for a very charming arrangement of arches overlooking the pleasure, or some similar treatment.

The conservatory attached to a palatial residence must, of course, be a very different structure to one which is attached to a brick suburban villa. In the former, stone entablature and pillars may be necessary, while for the latter a much lighter erection might be suitable, provided that the cornice and mouldings are correctly designed, and that they and the spaces between the glass rails are well proportioned.

If the conservatory is an additional apartment of the house in which bright and beautiful flowers are to be merely displayed and not grown, then the greater part of the floor space may be reserved for chairs and tables, with perhaps a wall fountain and one or two sculptured figures, the greenery being so arranged as to give it the character of a quiet retreat. In such circumstances the proportions of solid stone or brickwork and wood to the area of glass can be considerably increased, but where, on the other

## CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

hand, it is not only to be used for showing plants grown in the greenhouses, but also for the growth of roses and flowering climbers, then the proportion of glass to solid spaces must be as great as possible. Large sheets of plate glass should, however, be avoided, for they, æsthetically speaking, make blank holes in the walls, while if broken, they are very expensive to replace. A conservatory on the south-east or south-west of a house standing conspicuously on a hillside containing large sheets of plate glass, is glaring, especially if there are no trees to give partial shade and break its angularities. It will harmonize better with the residence if the sides and end are glazed with smaller but well-proportioned panes of sheet glass.

In illustrations Nos. 318, 319, 320 and 321 are shown four conservatories of varying degrees of importance, all occupying positions in which it was necessary that they should attain an architectural expression. The third, Illustration No. 320 is an extension to a

*Examples  
of conserva-  
tories of  
various  
sizes*



FIG. 321.

large open loggia and was designed as an open-air dining room and arranged to give a necessary covered approach to the enclosed garden beyond. It was intended to be used as a Winter Garden, or Orangery, with ample floor space for chairs, and, while the roof was to be arranged as simply as possible to obtain the maximum amount of light, it was necessary to design the front in harmony with the mansion, hence the stone arches and open verandah.

The first illustration shows a conservatory erected in the West Park, Wolverhampton. The design is adapted from that of the old English orangery and is a suitable structure to place at one end of a flower garden where architectural expression is desirable.

The second of these is shown in illustration No. 319, and was erected at "The Hill," Hampstead. It not only closed the well-marked main axial line through the grounds, on which the water-lily pond and terrace steps are placed, but also, together with the greenhouses on either side, gave privacy to the grounds, which were previously overlooked at that point from a knoll in Hampstead Heath. The ornament has been carefully concentrated on the main gable and the rest kept severely plain to give contrast and throw it into relief, and great care has been exercised in both the general proportions and the spacing and arrangement of the glass rails and other details.

The third illustration, No. 321, shows a small conservatory designed to hide unsightly back buildings, and which occupies a convenient position on one side of the carriage circle. There is only one small supplementary plant house for keeping it supplied with flowering plants, consequently it has been arranged as a fernery with the ferns planted in the crevices of limestone rock arranged naturally against the back wall and around the sides. As will be seen it has a greenhouse corridor connecting it with the drawing room, thus forming a convenient and desirable promenade under glass, and giving the conservatory an appearance of greater size.

## CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

*The conservatory floor.*

Regarding the furnishing of conservatories much depends upon their use, and the taste of the users, but the following remarks are of more or less general application. It is a mistake to pave them with many coloured tiles in obtrusive star or check patterns, which compete with the hues of the flowers. In all but the most elaborate conservatories, a dull red or buff-coloured tile free from glaze, forms a pleasing contrast to the dark green foliage of hot-house plants, and may be in the form of either "quarries" six inches square, laid either square or diagonally, or tiles six inches by two inches laid in the "herring bone" pattern so common in wood block flooring. In either case relief may be given by a narrow margin of darker brown-coloured tiles.

In important conservatories a large amount of open floor space is required, in which event the pavement may be marble, either in squares of one or alternating colours, or lozenges and diamonds, as in (Ill. No. 322), which is not so costly as might be supposed. For somewhat smaller structures a pleasing floor may also be obtained by using sawn limestone in conjunction with green slate, blue and green slate or red and yellow sandstones. The effect of the last on a large scale may be seen on the terrace in front of the National Gallery.

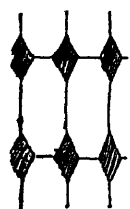


FIG 322

*Blank walls in conservatories.*

The majority of conservatories possess a certain amount of inferior blank wall, and unless the proportion of this is so great as seriously to interfere with the lighting, it may be regarded as an asset, for it allows of much individuality of treatment and delightful results. Where from four to six feet of space in front of it can be spared for a soil bed, naturally treated artificial rockwork, such as that described in Chapter XIII, may be employed, though there is a distinct danger of pettiness and over-elaboration in treatment to be guarded against, due to the effort to make the very most of a limited space. In large schemes of this kind, a dripping well for ferns with pools for gold fish may be added, but to attempt this on a small scale is apt to result in triviality.

*Treillage in conservatories.*

The graceful treillage which has been brought to such a pitch of elaboration by French artists is, in its simpler forms, eminently adapted to the interior ornamentation of conservatories. It may be either a form of wall decoration in itself or may provide a support for the slighter exotic climbers, or screens to break up the interior space into two or more compartments. Owing to its somewhat delicate construction it should not be used where there is danger of its being damaged. In any case it should be designed specially to meet the requirements of each individual case. Where treillage is too elaborate or too fragile, simple forms of ornamental trellis, designed after the style of that used in connection with so many Queen Anne or early-Georgian houses, may be effectively used.

Of the smaller furnishings, chairs, tables and what not, it is only necessary to say that they should be light and portable, and of a nature to withstand the humid atmosphere of a glasshouse, and as in the case of the paving, quiet and harmonious in colouring.

In gardens, where there is no conservatory to be kept supplied with a succession of flowering exotics, a range of glasshouses, is sometimes considered necessary. This is particularly so when the domain is situated at some distance from a market, but even when this incentive is absent, there is the delight of rearing one's own fruit and flowers, which are fresher than those which are bought.

*The planning of a range of glasshouses.*

As a rule, the planning and arrangement of a series of glasshouses are left more or less to chance and expediency, the various houses being placed anywhere conveniently accessible where the necessary open aspect can be obtained, or a wall exists to place the lean-to houses against. How much is lost by this lack of forethought, even in small and simple ranges, will be at once evident on referring to the photographs of such ranges in illustrations Nos. 324 and 325. Even where there is only one simple lean-to

## CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

house, it may be made part of a thought-out scheme by placing it centrally across the end of the main kitchen garden walk, and having a door under a small gable to come opposite the walk. In larger schemes, the main span-roofed house would usually come end-on in the same position with the less important houses arranged symmetrically on

either side, as in illustration No. 319, though in many instances, such as that shown in illustration No. 334, an absolutely symmetrical arrangement cannot be obtained on account of local conditions, which demand individual treatment, such enforced variations, if intelligently dealt with, always result in pleasing individuality

One of the most important considerations in the planning of a range of glasshouses, is the placing of the potting shed and heating chamber. As the latter must be sunk deep enough below the floor level of the glasshouses to allow the top of the boiler to be lower than any part of the radiating pipes, it is usually a good and economical arrangement to allow it to form a basement story to the former. This arrangement is shown in a majority of the designs illustrated in this work, and where the range is symmetrically planned, the potting shed and heating chamber should come immediately behind the main centre house with a door between it and the former, giving direct communication.

The floor of the heating chamber should also be low enough to allow of a large bucket being placed under the draw-off cock, which is fixed at the lowest part of the boiler. This is a point which is often neglected.

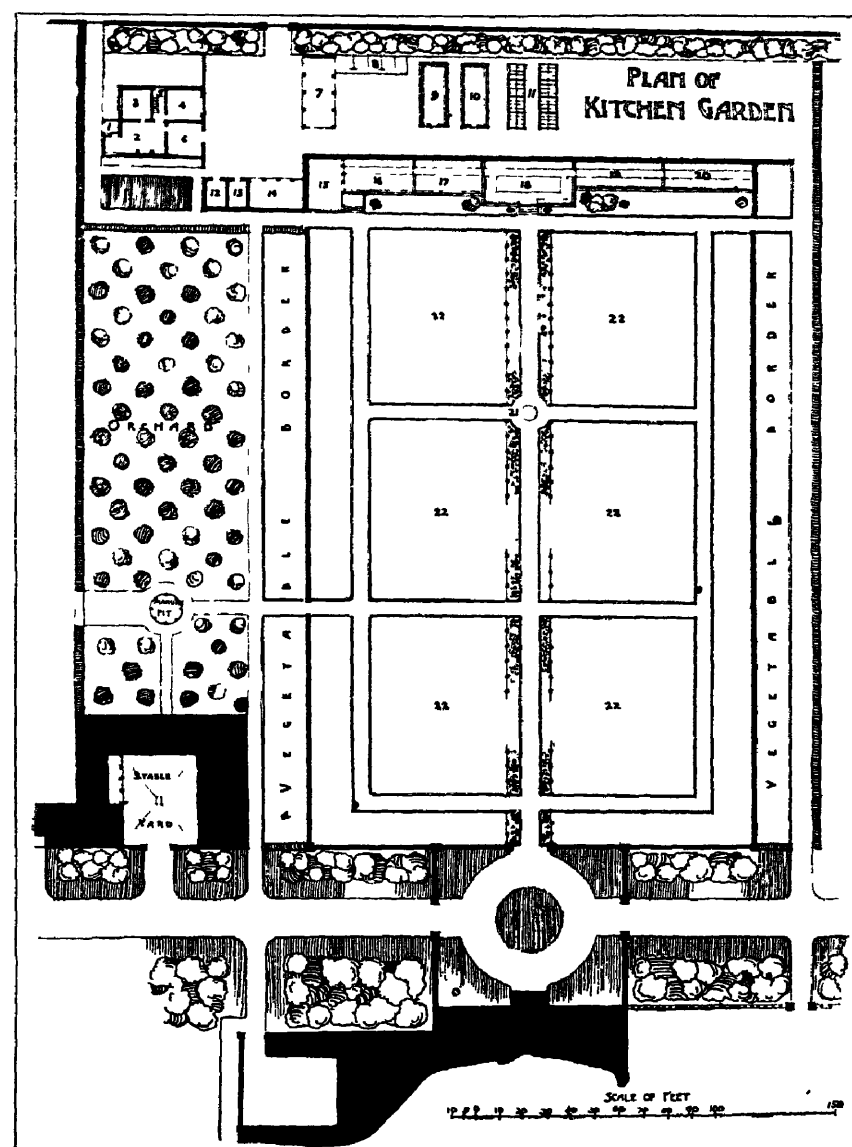


FIG 323

- |                 |                  |                   |
|-----------------|------------------|-------------------|
| 1 PORCH         | 10 GREENHOUSE    | 16 LATE VINERY    |
| 2 LIVING ROOM   | 11 GARDEN FRAMES | 17 EARLY VINERY   |
| 3 PARLOUR       | 12 ROOT AND SEED | 18. CONSERVATORY  |
| 4 SCULLERY.     | STORE            | 19 EARLY PEACH    |
| 5 STAIRS        | 13 FRUIT STORE   | HOUSE             |
| 6 YARD          | 14 OPEN SHED     | 20. LATE PEACH    |
| 7. COKE STORE   | 15 POTTING SHED  | HOUSE             |
| 8 COMPOST BINS. | WITH HEATING     | 21 DIPPING WELL   |
| 9 STOVE HOUSE   | CHAMBER UNDER    | 22 VEGETABLE BEDS |

economical in first cost but has several advantages from the gardener's point of view. Three-quarters of his work will centre round the potting shed and heating chamber, so that to have these one over the other is very convenient, and the door between the former and the glasshouses will allow him to remove plants from one to the other without undue exposure. No fumes from the heating chamber will reach the glasshouse by this door, for the former will be approached by an outside staircase and not have any direct communication with the potting shed. All that is necessary is that the staircase to the heating chamber shall be conveniently placed in relation to a door from the potting shed communicating with the space at the rear of the range. Again, such an arrangement allows of a very convenient planning of the hot-water pipes. In the first place it renders the construction of culverts conducting the pipes from the boiler to the



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range, or from house to house unnecessary. However carefully the pipes are swathed in heat-conserving material, there is always a loss of heat varying with the length of the culvert and other conditions, such as the material with which the pipes are packed and the possibility of keeping it dry. Again a further advantage lies in the fact that, in such an arrangement, the hot water pipes will go right and left from the boiler in two separate circulatory systems, so that during those portions of the year when few houses will need heat, it is possible entirely to cut off half the pipes at a main valve, and heat the rest with a small and economical fire. It also allows of the houses which require most heat being placed nearer the centre of the range, and consequently nearer the boiler than those which require less. Thus the early vinery might come first with the late vinery beyond, and the early and late peach-houses after them in the same order, as the last of these would require very little or no heating. The stove house would, of course, come nearest of all, as it requires the fiercest heat.

Where the plan of a range is necessarily L shaped as in illustration No. 346, the potting shed is most convenient in the angle, otherwise there is necessarily a small square house at this point, which being shut in on all sides, is suitable only for a fernery, and, unless this class of house is wanted, as in the instance shown, the space is more or less wasted.

*Hot water  
installa-  
tions.*

In the now almost universally adopted low-pressure hot water system of heating, the hot water from the boiler is caused to circulate through the pipes by utilizing the natural law which ordains that, if one part of the water in the system is hotter than another, it will rise to the top. Thus the water is heated in the boiler and finds its way into the pipe known as the "main flow," which starts from the top of the boiler and, rising as it goes, gradually travels to the highest and most distant point in the system. Being cooled as it goes, it then returns to the boiler by means of the "main return," which joins the latter at the bottom. It thus follows, that to ensure good results, the rise in the pipes from the boiler to the extremity of the system, should be continuous and even. To make this possible, the main pipes are usually placed in a trench under the glasshouse floor, as otherwise they would come across the doorways, and could not be run through even the shortest trench between the main block and an outlying house or hot frame. The radiating pipes are then connected to the mains at convenient points and furnished with screw-down valves. There are two means of doing this, known respectively as connection "in series" and "in parallel." In the former case both ends of the branch are connected to the same main, with a stop-cock on the main between the two connections, while in the latter, which is by far the better way for horticultural work, the flow of the radiating system is taken from the main flow, and the return pipe to the main return. The former method, which is more suited to the heating of domestic buildings, is sometimes advocated for horticultural work on the ground that the radiating pipes nearest the boiler will, if connected in parallel, monopolize most of the heat; but this is easily remedied by a little adjustment of the screw-down valves. In any case, the mains should always be run under the houses and not in outside culverts, as any escape of heat is utilized and simply supplements the action of the radiating pipes.

The amount of piping which is required in each house will of course depend on the use to which it is put, but the situation, whether exposed or sheltered, is also a controlling factor. For general use, however, the following Table, extracted from "Fowkes on Heating," will be found reliable.—

							Per 1,000 feet of cubic contents.		
Greenhouses and conservatories	...	...	...	...	...	...	35 to 40	feet of 4-inch pipe.	
Vineries	...	...	...	...	...	...	45 to 50	"	"
Plant stores	...	...	...	...	...	...	55 to 65	"	"
Forcing houses	...	...	...	...	...	...	50 to 70	"	"
Peach houses	...	...	...	...	...	...	30	"	"

## CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

For heating anything up to 3,000 feet of four-inch piping, I have found no better boiler than the old "Chatsworth," but sectional boilers of the "Ideal" type are growing in favour, as they can be used equally well on the smallest or largest installation, and also because, in case of accident, the injured section can be so easily replaced. They are self-contained and require no brickwork, but the cost of either is about the same, what is saved in brickwork being spent on the more costly boiler. There is a distinct advantage in having the firebars in the form of tubes through which the water circulates, as the fire can be damped down in the evening, and will smoulder with a red heat next to the water bars, and the water is therefore kept hot without attention until the following morning. The water-cooled bars also do not deteriorate or need constant renewal like the old-fashioned firebars, which never last very long.

*Boilers.*

Whatever boiler is adopted, however, it should be of ample size and power for the work it has to do, as it is far more economical to fire a large boiler slowly than to produce the same heat in the pipes by fiercely stoking a smaller apparatus. Under ordinary circumstances the writer usually advises that a boiler guaranteed to heat one third more piping than the maximum load it is to be subjected to should be adopted. At some time or other, also, one of the houses may be put to a new use and require more piping, which can be added very cheaply, needing no alterations to the boiler.

In large installations, it is an advantage to fix two smaller rather than one large boiler. Not only does this prevent disaster should one boiler be under repair in severe weather, but in those seasons when little heat is required, only one boiler need be fired and thus a working economy is effected. The arrangement of one main flow and two returns is practical and is often done, but a greater number of flows than returns would be unpractical.

It is thus evident that the two problems of planning and heating a range of glass-houses are interdependent; nothing can be arranged with regard to the one without influencing the other, and that, by the exercise of care and forethought in these two departments, great economies can be effected in the initial expenditure and also in the working and upkeep.

*Planning  
of growing  
houses.*

Sections of the various kinds of glasshouses are given in illustrations Nos 326 to 331 inclusive.

Whatever the form and purpose of the house, however, it is important that it should not be made higher than is necessary, so as to limit the cubical area to be heated. It is admitted by the most capable gardeners that glasshouses are usually built more loftily than is necessary; in some instances so much so as to make successful plant growing impossible. Probably the best growers in this country are those who supply Covent Garden Market, whose plant and fruit houses are much lower than those usually met with in private establishments.

Another important point is the pitch of the roof. The use to which the house is to be put will largely determine this, but, where there is much choice, four other factors should be considered. The first of these is, that the flatter the pitch is, the more evenly the heat will be distributed, while, if it is steep, all the hot air will accumulate near the apex, and thus a flat pitch tends to sturdy growth. Again, a low pitch allows of all the plants being brought very near to the glass, which is desirable if they are not to run away in long bare stalks. A third consideration is that by making the roof steeper, drip, that is the dropping of condensed water vapour from the roof upon the plants, is avoided; while the fourth and most important consideration of all is to find a pitch which will admit the most light. This means that the slope of the roof must be about at right angles to the direction in which the rays of the sun strike it, at the period when sunlight is most precious, namely in winter. In mid-winter, the sun's altitude being only fifteen degrees, would involve an impossibly steep roof; but extreme steepness

CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES



FIG. 324 —HERBACEOUS BORDERS AND RANGE OF GLASS, WYCH CROSS, SUSSEX.

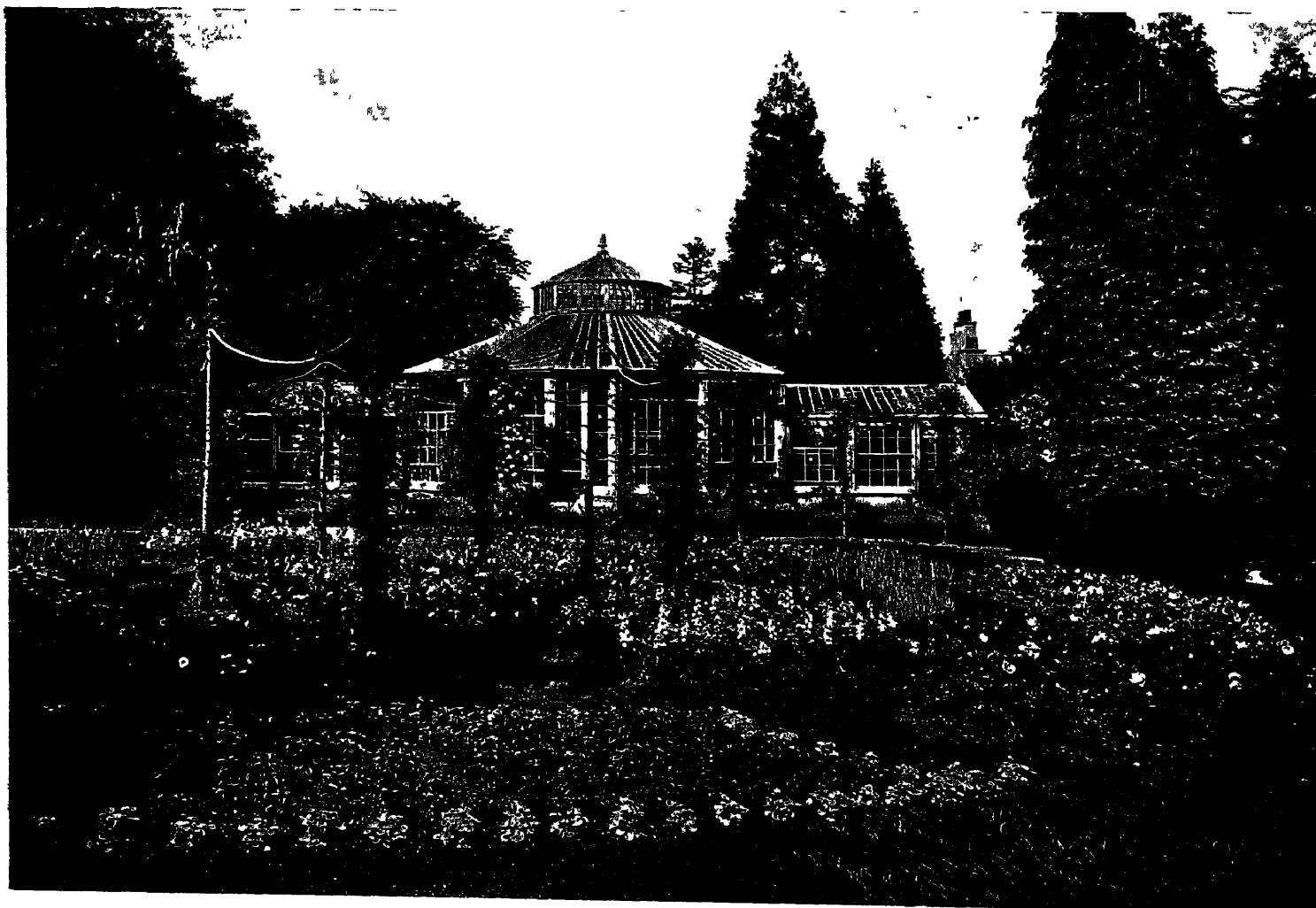


FIG. 325.—SMALL RANGE OF GLASSHOUSES AT LEWISTON MANOR.

## CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

is not of so much moment as might be supposed, for if the sun's rays strike the glass as much as thirty degrees out of the rectangle, the loss in efficiency is only  $2\frac{1}{2}$  per cent. These factors, if considered independently, would result in very different slopes, and it is therefore a case for compromise and adjustment. This process coupled with experience has resulted in most span houses, such as those shown in illustrations Nos 329, 330 and 331, being constructed with a pitch of twenty-six degrees from the horizontal, which gives a rise of six inches in every foot of breadth, while the lean-to houses, such as those shown in illustrations Nos 326, 327 and 328, are made with from this span upwards

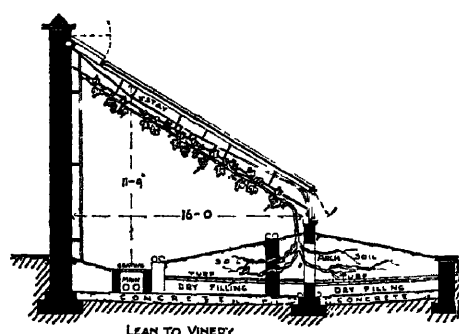


FIG 326

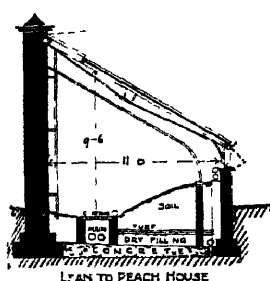


FIG 327

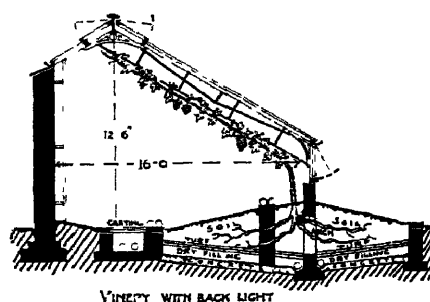


FIG 328

according to the use to which they are to be put, peach houses often having a very steep pitch indeed. As to the gables over doorways:—The principal plant houses in a range having the gable end towards the spectator as he views the range as a whole (Ill No 324), usually have their roofs square pitched, i.e., at an angle of forty-five degrees. This is the angle that the roof of a conservatory is pitched. Needless to say, under all ordinary circumstances the whole of the lean-to houses in a continuous range should, if possible, have their roofs of one pitch.

A feature common to all classes of glasshouse is the substructure of wood, stone or brick, on which the glass structure stands. This may vary from a dwarf wall only a

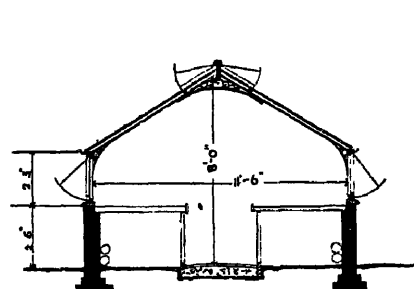


FIG 329

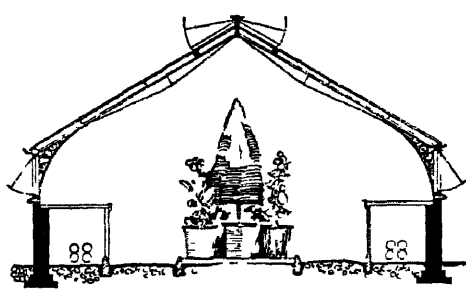


FIG 330

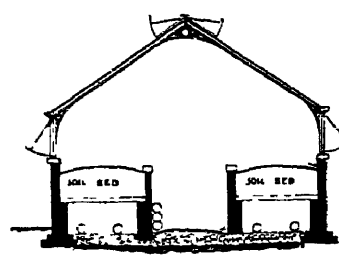


FIG 331.

foot high in the case of steep-pitched peach houses, to one three feet six inches or even four feet high. Of the three materials mentioned, brick is the best if built in strong mortar, as it gives a wall of a convenient thickness which is heat retaining and has a surface which can easily be kept clean. Most stone walls encourage insect pests, especially friable sandstones, while wooden substructures should never be used unless the greenhouse be constructed to form a tenant's fixture.

The simplest form of glasshouse possible, as distinct from frames and pits, is the lean-to house, in which the roof rises directly from the wall in front without any glazed front. Such houses used to be common for plant stores or vineries, but are now seldom erected and not desirable, as the extra cost of a full glasshouse is so small compared with the vast improvement it makes in the house both practically and in appearance. There is, however, a form of peach cover or late peach house which is very similar in appearance to a lean-to house without front lights, and which may be erected with advantage in the south of England where the summer days are hottest. In such houses the roof consists of a series of loose glazed frames each long enough to form a complete

*Lean-to houses.*

## CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

cover for a section of the roof from eaves to apex, and which can be removed at pleasure, leaving the whole of the interior open to the hot sun and air.

Illustrations Nos. 326 and 327 show sections through the better sort of lean-to houses, the dotted lines indicating how the ventilators in the front and top open, thus providing through ventilation. This provision of both inlet and exit ventilators is an important point and must be so contrived that the cold air entering comes into contact with the radiating pipes before it reaches the foliage or fruit. All the sections given illustrate how this is done, the small circles representing radiating pipes seen in section and so placed as to meet the incoming air.

*Three-quarter span houses.*

Illustration No. 328 shows what is practically a variation of the ordinary lean-to house, known as a "three-quarter span house." The ventilators on each side of the ridge are arranged so that, whichever way the wind is blowing, one side or the other will be sheltered. The class of house gives the range of glass a better appearance by allowing of a broad house which is not much higher than the lean-to houses on either side, and at the same time, does not necessitate such an exceptionally high back wall as a lean-to house would.

*Span-roofed houses.*

The remaining usual form of glasshouse is the span-roofed house, which is shown in section in illustrations Nos. 329, 330 and 331. For market gardening purposes they are often built without front lights in the manner described for the simplest form of lean-to house, but in a garden this is hardly ever done, as it prevents the flowers being seen from without the house. As will be seen from the illustrations they have ventilators in both side walls and both sides of the ridge, but the piping is not, in the instances shown, carried so as to intercept the air coming through the former as in the case of the lean-to houses already described, because they would be in the way. Instead, they are placed under the staging close to box ventilators in the brick substructure. These box ventilators are openings in the wall, usually about eighteen inches long by nine inches deep, fitted with a hinged lid or shutter which can be partially or widely opened as desired. In the forcing house (Ill. No. 331) even this arrangement is not possible.

*Internal fittings.*

Besides these main distinctions in the design of the three chief forms of glasshouses, there are sundry others, which are adapted by their internal fittings to various uses. In the case of vineries, the front wall is often built in the form of arches just below the ground level and resting on piers so that the roots of the vines may have room to grow outwards as well as inwards, as shown in illustrations Nos. 326 and 328. Many gardeners state that it is a wrong principle to have part of the roots of the same plant growing in a heated bed and part in the open, but the transition from hot to cold in a thick bank of soil and compost is gradual, and may be almost prevented by arranging heating pipes at the bottom of the bed, as shown in the sections just referred to.

The vines themselves are trained over wires strained parallel to the under side of the roof and about nine inches from it. These wires are sometimes placed so as to run vertically from the apex to the eaves and sometimes horizontally. The latter is the better way as it allows each vine to be tied to a number of them so that, in case one breaks, the vine is held by the others.

The peach house is fitted with a wire trellis with galvanized iron framing, which is usually curved, as shown by the double line on illustration No. 327, and rests on brick pillars passing through the soil bed inside the house.

A section through a stove house is given in illustration No. 331, which shows the arrangement of pipes under the bed which is contained in a kind of trough with brick sides and a slate bottom.

*Staging.*

Other houses usually require staging, which may be of slate, wood or iron. Iron staging is formed by placing narrow corrugated iron on an L-iron framing, which is

## CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

supported on iron legs, preferably such as shown in illustration, No. 332. The corrugated iron used has neat narrow corrugations and is not to be confounded with that used in cheap buildings. It is usually covered with fine pebbles, or the less pleasing spar chippings.

Slate staging is much the same thing with slates instead of the corrugated iron.

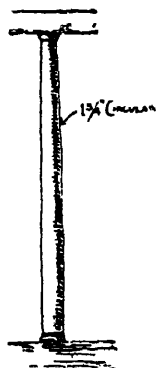


FIG. 332.

This makes the best staging because it counteracts the effect of sudden changes of temperature. The most usual staging is formed of open three-inch wood battens and one inch thick, on a wooden framework and wood supports. It is not so durable as the two preceding forms, but is cheaper and by some its appearance is preferred. It lends itself particularly to the arrangement of plants in tiers in the centre of a plant house or conservatory, or against the back wall of a lean-to house. It can also be constructed as to be easily removable, to allow chrysanthemums or other large plants to be displayed on the floor.

The height of staging placed against the front wall of a glasshouse should preferably not exceed twenty-seven inches. The plants look better from the outside of the house if its surface is nine inches below the bottom edge of the glass, so that the pots are hidden. Staging in the middle of a plant house or conservatory is often used for tree ferns, palms, camellias, or large plants growing in heavy pots or tubs, and must therefore be strong; a good staging for such plants is formed of sawn flag tabling, resting on stone or brick piers.

The best pavement for almost any glasshouse is formed of Yorkshire flags, "quarries" or red tiles, already advocated for conservatories. Brick on edge laid in cement or sand can also be used where really hard and vitreous stocks of a nice warm colour can be obtained. Cement floors or wood gratings become mossy and slippery. *Paving.*

In a large plant house or conservatory, soil beds are often formed in the centre of the paving. These beds should be edged preferably with stone edging like that shown in illustration No. 354 for outside flower beds, but bricks or terra cotta moulded to a simple pattern may be used. The moulding should be simple and unobtrusive and sufficiently high to retain the soil some four or six inches above the floor level, well fixed in position by cement or dowels on a concrete or brick foundation. Where required, the kerb may be of a pattern into which the standard for the staging may be fixed. *Soil beds.*

There is one constructional item omitted from the sections for the sake of clearness. This is the opening gear by means of which the whole of a series of ventilating lights are opened at one operation. Generally speaking, the top ventilators, i.e., those in the roof, are opened by revolving gearing operated by a crank fixed to the back wall or the end framing in a convenient position, while the front lights are moved by a simple lever. The latter are often a heavy load to raise all at once if hung from the top edge, but by hanging them on pivot hinges about two-thirds of the way up the framing, so that the top edge of the frame drops inwards as the bottom edge rises, they can be opened and closed with ease. *Opening gear.*

Whether the range of glasshouses is large or small, it is usually necessary to have a few pits and frames. The difference between these is that, whereas the former have brick sides and are fixtures, the latter are made entirely of wood and are usually portable. They may be so planned and placed as to form an integral portion of the design for the range of glass and may be heated by, say, one three-inch radiating pipe run all round each in order to keep out the frost. The point most often neglected in their construction is the efficient exclusion of rain-water along the ridge where the two removable lights meet. The capping to do this needs a little ingenuity in its arrangement to prevent its coming in the way when the lights are turned back, but there are several contrivances on the market to effect it. *Pits and frames.*

## CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

*Design of  
potting  
shed.*

We have already spoken of the placing of the potting shed. Its interior fittings usually consist of a broad bench with bins below to hold various composts, sand, loam, etc., and a little hob grate with a small oven in which occasional labourers may warm their food. In other cases the shed is comfortably heated by means of a small radiator connected to the heating apparatus. The floor should be of solid concrete, as the fumes from the heating chamber below otherwise make the interior unbearable. In building, wood plates four and a half inches broad and three inches thick, should be built into the inside of the walls, five or six feet high to fix hooks, and screw shelves to.

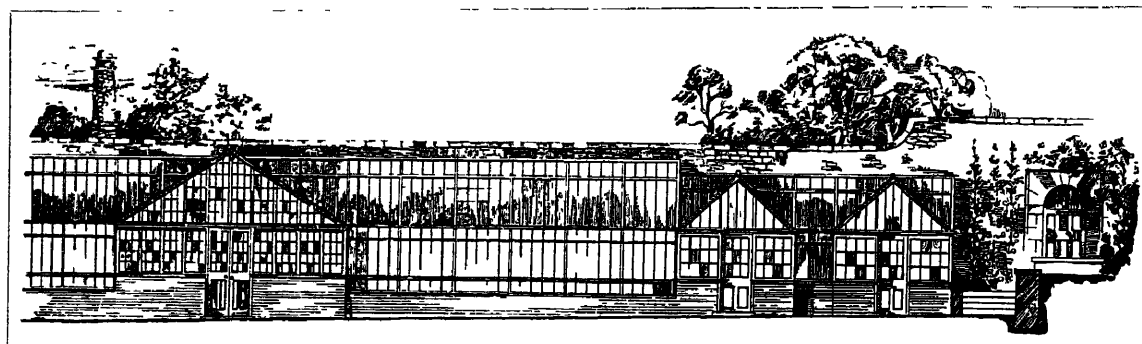


FIG. 333 — RANGE OF GLASSHOUSES AT HOLEHIRD, WINDERMERE.

*Heating  
chamber.*

The heating chamber must be of ample size to allow the person stoking the fire to use his long stoking irons, and iron brackets to hold the latter are fixed to the wall. There must also be a recess for fuel conveniently placed for stoking and with a shoot above. The ideal arrangement would be two separate chutes, one for coal and one for coke, but only one is usual.

*Compost  
ground.*

The doors from the potting shed and heating chamber should open on the space at the back of the wall which supports the lean-to houses, and this is a convenient

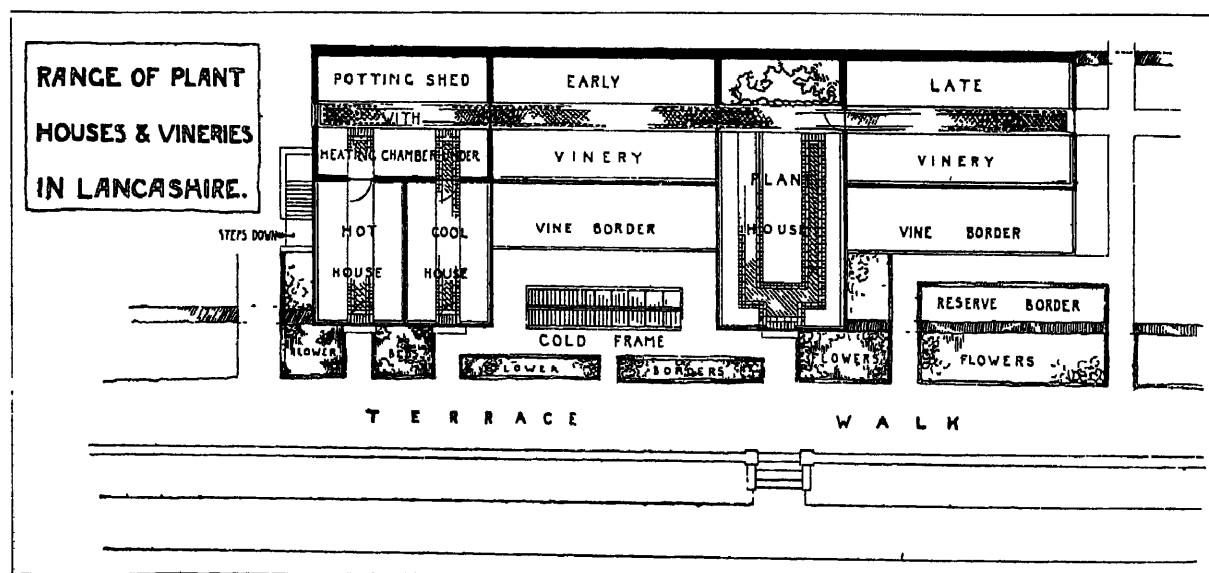


FIG. 334.

place for the provision of a piece of open ground for storing composts, turf, leaf mould, flower pots, barrows, tools, etc.; for the latter and lawn mowers, a shed may be built against the high brick walls. Ready access by carts bringing fuel, manure, etc., is of course a necessity.

This compost ground is usually an ugly place and the sheds against the back wall of the range of glass are hideous, but they need not be so. If made with a solid wooden framing treated with Stockholm tar and roofed with agreeably coloured pantiles, they may at least be neat. The provision of brick bins for composts, etc., will keep the rest tidy, and a neatly clipped hedge with a pleasing gate may surround the whole.

# CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

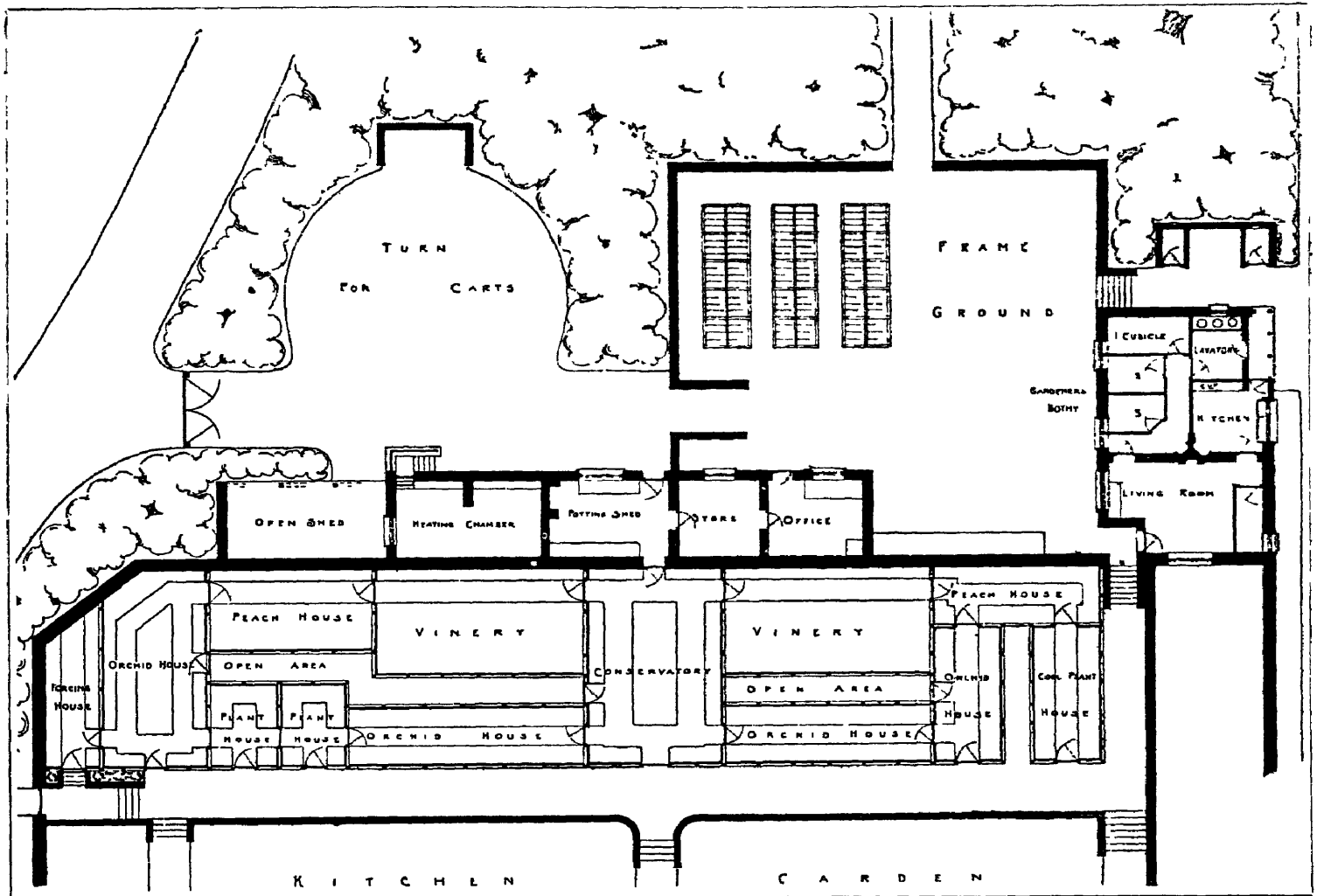


FIG. 335 —RANGE OF GLASSHOUSES AT HOLEHIRD, WINDERMERE.

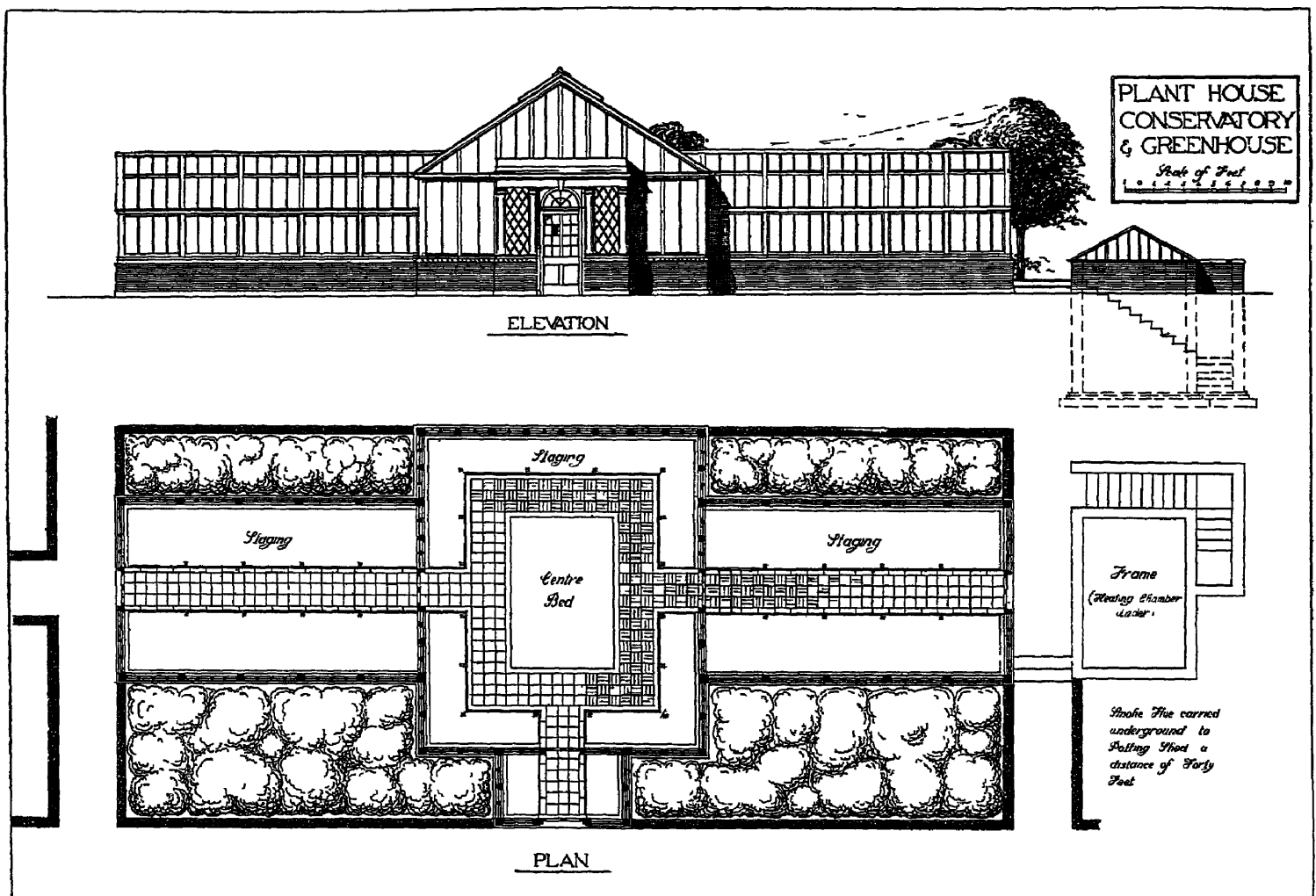


FIG 336.



## CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

A water supply throughout the range is important. In each house there should be a galvanized iron tank under the staging, kept full by a ball valve, which ensures a supply with the chill taken off it before use. There should, however, also be a stand-pipe in each house to connect the hose to for floor washing, etc. The same supply would also, of course, be laid on to the supply cistern of the heating apparatus, and a tap and sink in the potting shed are useful.

*Examples  
of ranges  
of glass.*

In the accompanying illustrations are shown plans and examples of ranges of glass varying in capacity and design, to accompany garden projects of corresponding extent.

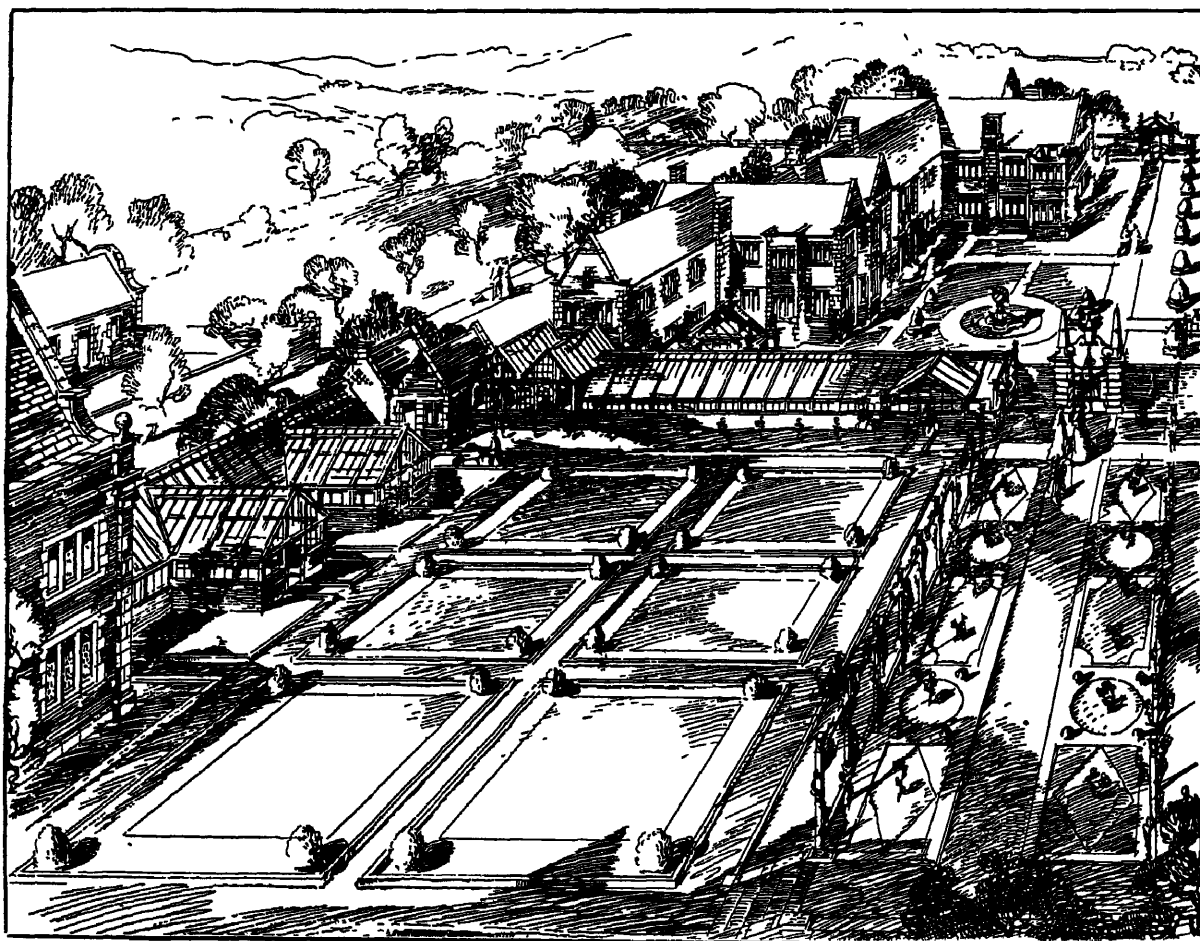


FIG. 337.—RANGE OF GLASSHOUSES AT THE FLAGSTAFF, COLWYN BAY.

The first (Ill. Nos. 324 and 346) is a unified and self-contained scheme at Wych Cross Place, Sussex, carried out for Douglas W. Freshfield, Esq., as was everything on this estate, in a complete and consummate manner, in conjunction with the gardener's cottage and the bothy. The sense of unity and compactness observed here is not always attainable in remodelling existing grounds, and is often lacking even in new estates, where disconnectedness and diffusion are inexcusable. The noticeable points in this scheme, give principles which should always be kept in view, namely, the centralized position of the heating chamber, thus obviating waste of heat, and the ease with which the head gardener can supervise everything at any hour of the day or night.

The second example (illustrations Nos. 333 and 335) shows additions to fruit houses at Holehird, Windermere. The old portion consisted of early and late vineries, with a plant house in the centre and a peach house at each end, the remaining houses shown being added from my designs, thus welding old and new into a self-contained range. The centre house was pulled down, and also one of the peach houses; the potting shed and the heating chamber, although considerably enlarged, occupy the same position as before the alterations, the remainder of the work is all new. In planning these new orchid and plant houses, the limits were fixed by the walks shown on the plan, and the position of the retaining wall surrounding them. The proprietor wished to be able to

## CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

go the round of the entire range without leaving the shelter of the glass, an object which the allotted space somewhat favoured; the only obstacle being that one of the outside vine borders had partially to be cut away. This was, however, in a measure compensated for, by the improvement made to the inside borders.

Entering by way of the potting shed built on the north side, an ample gravelled space is provided for carts, etc; to the left, which is slightly higher ground, is arranged the frame and standing ground, with the gardener's bothy placed against the north wall of the kitchen garden. To the right and left of the potting shed are stores, office, heating chamber, shed for tools, ladders, and compost heaps

The heating mains are carried through the potting shed, the stores and office, to right and left of the boilers, thus making these rooms comfortable to work in. The heating of all the houses is so adjusted that the temperature of each can be regulated to the niceties required for orchids or other purposes.

In designing the elevations, it was necessary that strict attention should be given to the habits and requirements of the plants to be grown in the different houses, but, by care in grouping and in detailing the cornices, it was found possible to obtain compactness and simplicity without sacrificing appearance

The third range of glasshouses at Dunira shewn by plan and elevation (Illustrations Nos 338 and 339) occupy in part the site of a smaller range constructed about twelve years ago, and which was in such a perfect state of preservation that we have incorporated it in the enlarged scheme; thus peach houses and vineries numbered 2, 3, 4 and 5, form part of the original range, whilst the span-roofed orchard houses which terminate each end, were re-erected after removal from the centre now occupied by the palm house. The remainder of the glasshouses are new, and the whole of the important working departments and offices have been re-constructed and modernised. In the frame yard ample space has been provided for standing and plunging space for chrysanthemums and other plants which are grown in the open during the summer months.

The perspective view (Ill No. 337) shows a range of glass erected at The Flagstaff, Colwyn Bay, North Wales, consisting of potting shed with heating chamber under, a corridor and room in which to pack flowers and fruit, palm house (18 feet by 17 feet), early muscat house (27 feet by 16 feet), late vinery (27 feet by 16 feet), and plant house (24 feet by 16 feet). All these glasshouses face due south. Against the wall connecting the lodge and the potting shed are erected early and late peach houses, projecting from them are two span-roofed houses used for propagating and melon growing.

The fifth example given (Ill. No. 334) shows a small but useful range of glass, designed in connection with a formal garden for a Lancashire client, consisting of a plant house which can be used as a conservatory for the display of chrysanthemums or other flowers in bloom, a vinery, which is divided into two compartments, one for Black Hamburgs and the other for Black Alicantes and Lady Downe Seedlings, and, at the end of the vinery, a plant house and stove, each 12 feet wide. Like the first range of glass described, the whole of these houses are in direct connection with the potting shed.

The sixth example (Ill. No. 336) represents glass houses on a small scale, erected at Windermere. Here there is a conservatory in the centre, a small stove at one end, and greenhouse at the other. The chimney in this case was not permitted to be near the house; in preference, therefore, to carrying the pipes in trenches, it was considered more economical to place the boiler near its work at the end of the stove, conducting the smoke through an underground flue to a chimney over the potting shed some forty feet distant. The stoke-hole is completely hidden by placing over it a span-roof pit, which, being visible from almost every portion of the grounds, was made rather more ornamental than is usual. Illustration No. 325 shows a very similar range which embodies in its design some of the best features of the pre-Victorian glasshouse.

# CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

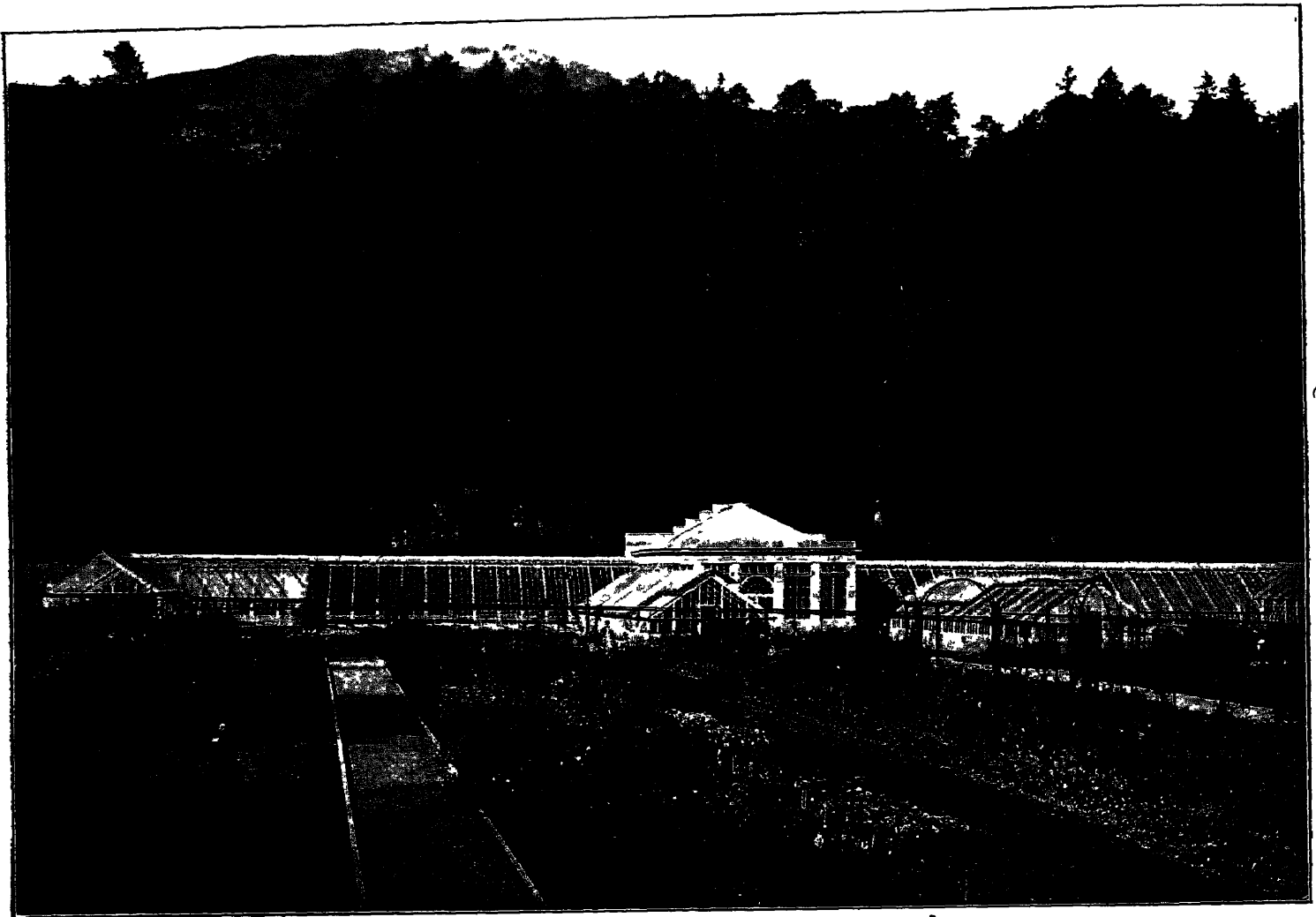


FIG. 338.

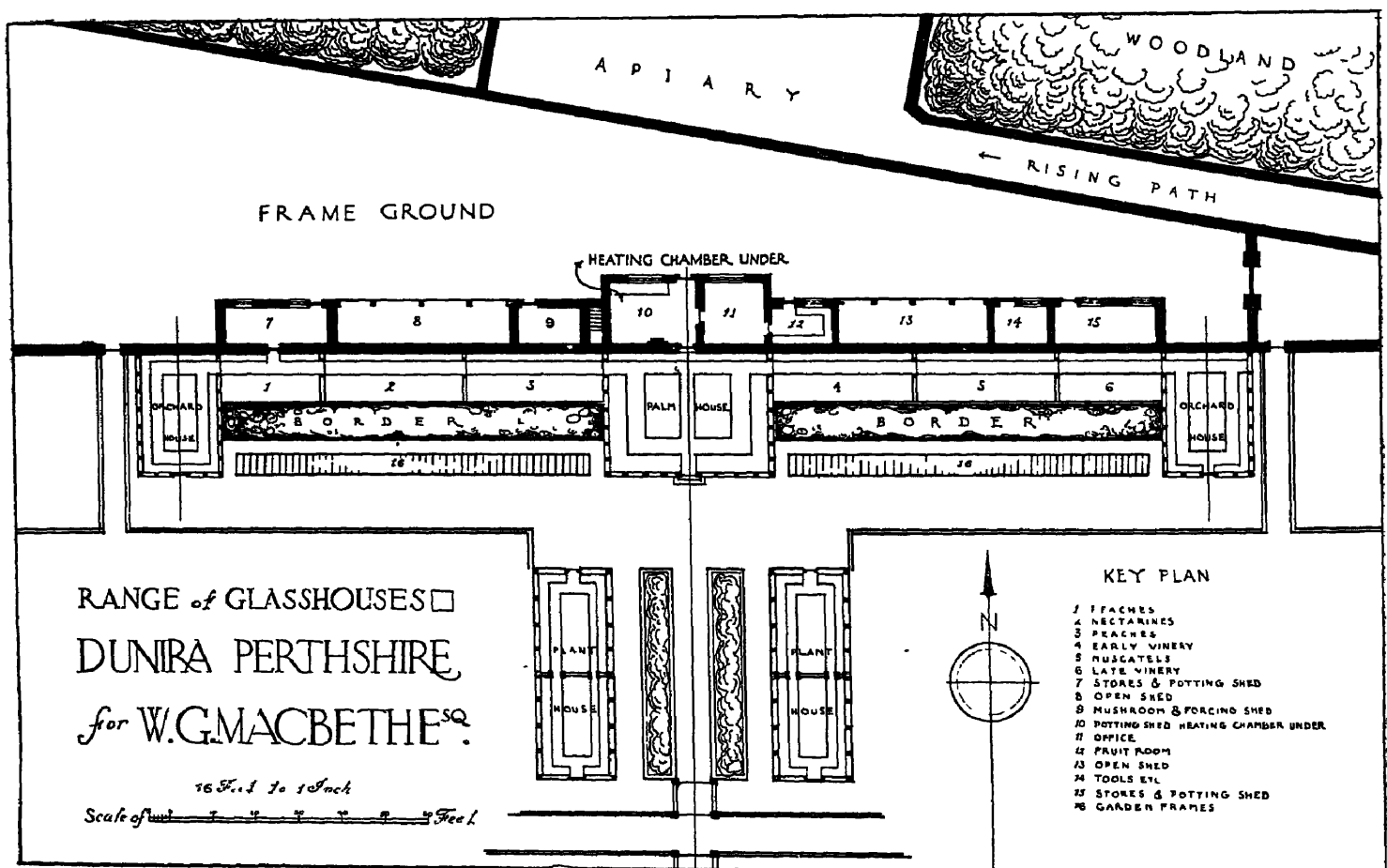


FIG. 339.

CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES.

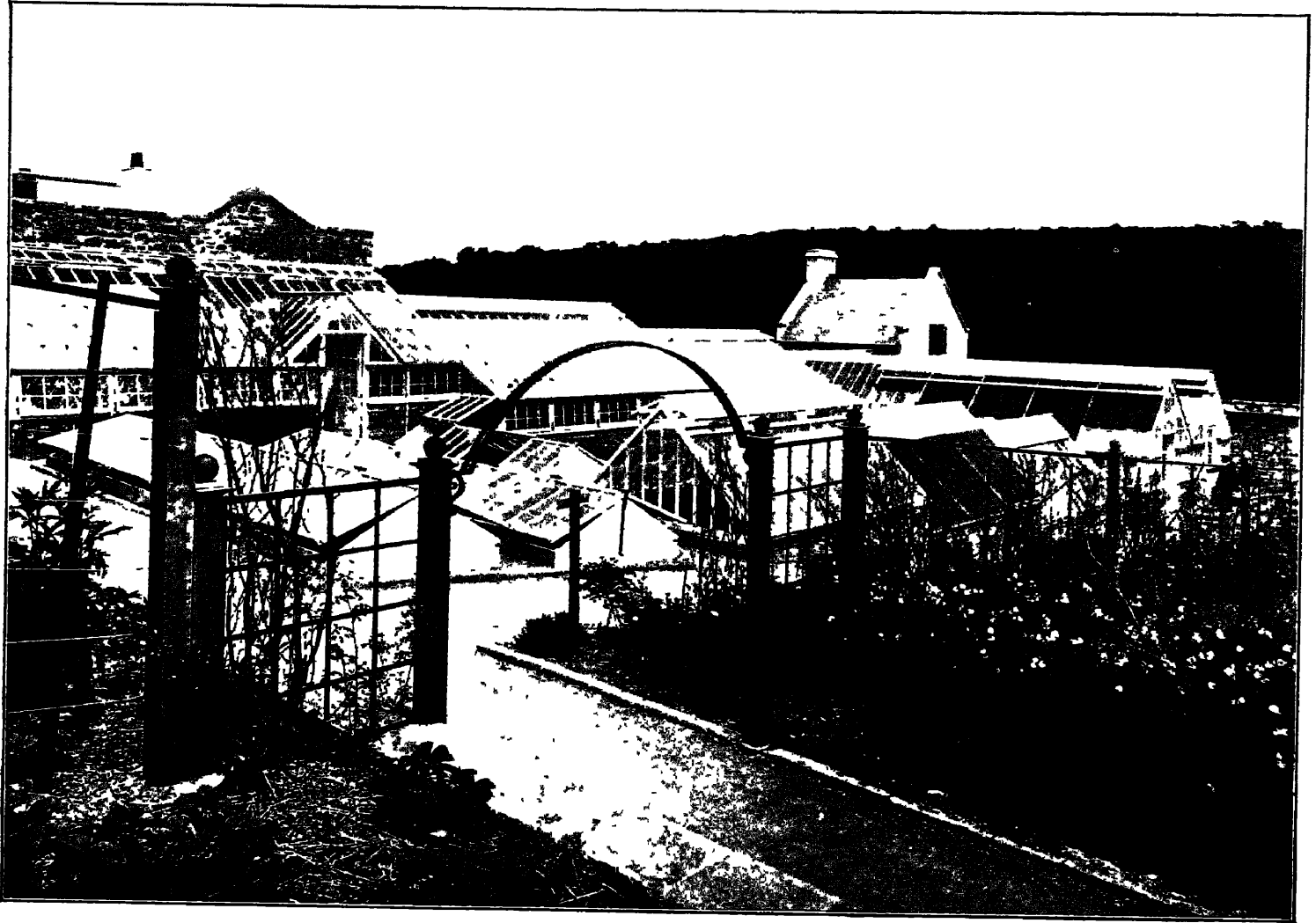


FIG. 340.—RANGE OF GLASSHOUSES AT "WOOD," DEVONSHIRE.

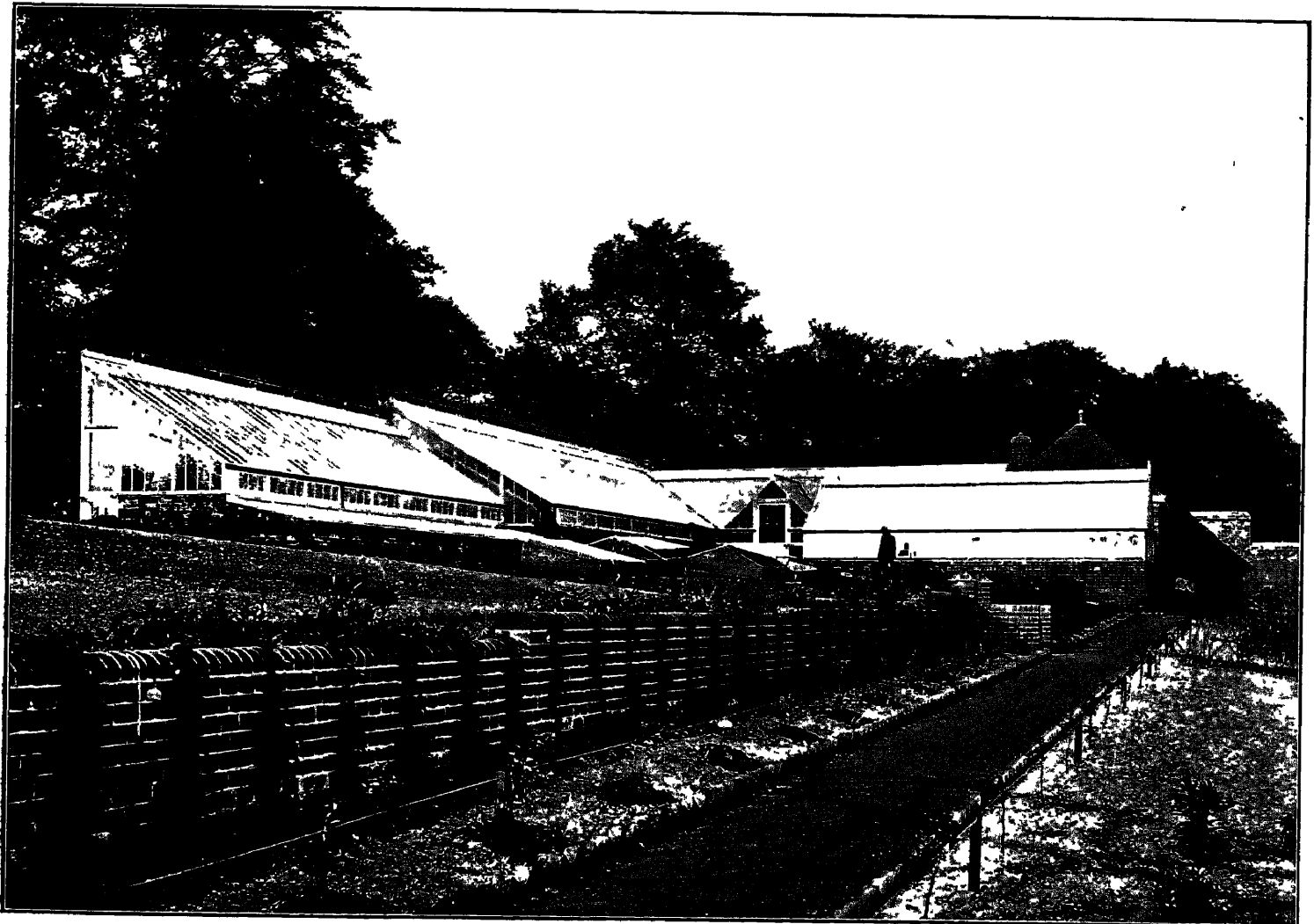


FIG. 341 —RANGE OF GLASSHOUSES IN KEARSNEY COURT, DOVER.

## CONSERVATORIES, GREENHOUSES, VINERIES, AND FRUIT HOUSES

The last illustration (Ill. No. 342) is of a very simple little greenhouse, calculated to give pleasure to amateurs and ladies interested in gardening. Essentially a "growing house," it is suitable for almost any class of plants, the requisite amount of piping being

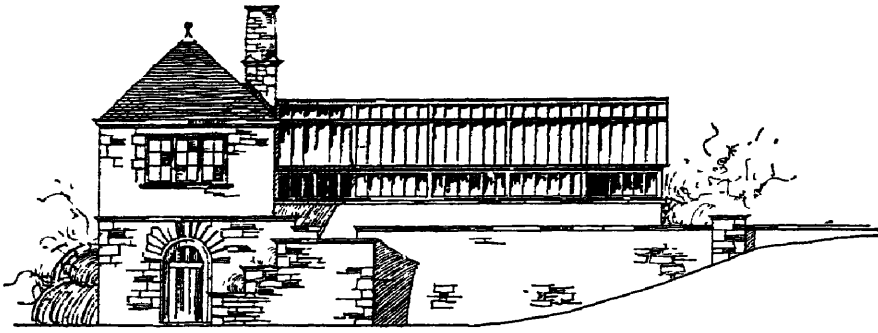


FIG 342

provided. Where there are no other glass erections, the wisest plan is to use it as a cool house. It is attached to a potting shed and tool house containing a potting bench, the heating chamber being under, with independent boiler and extended hopper feeder, to ensure the fire burning for a long time without attention. This little boiler

heats a 4-inch flow and return pipe passing round the greenhouse, sufficient to keep the temperature at 45 deg during the winter months. The staging is four feet wide, of fixed lattice on one side, and on the other of slate, which can be removed to allow chrysanthemums being placed on the ground during the period of bloom.





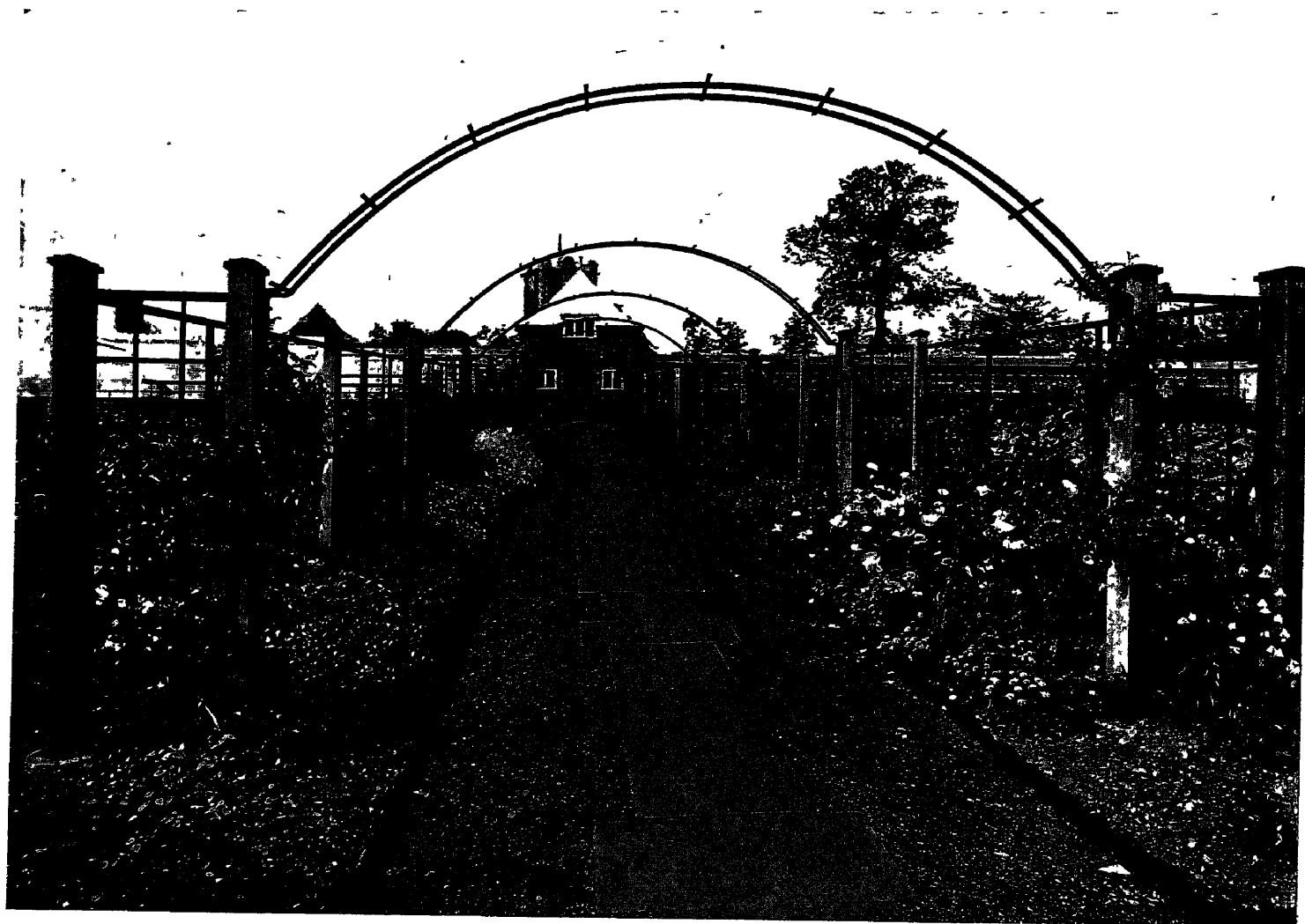
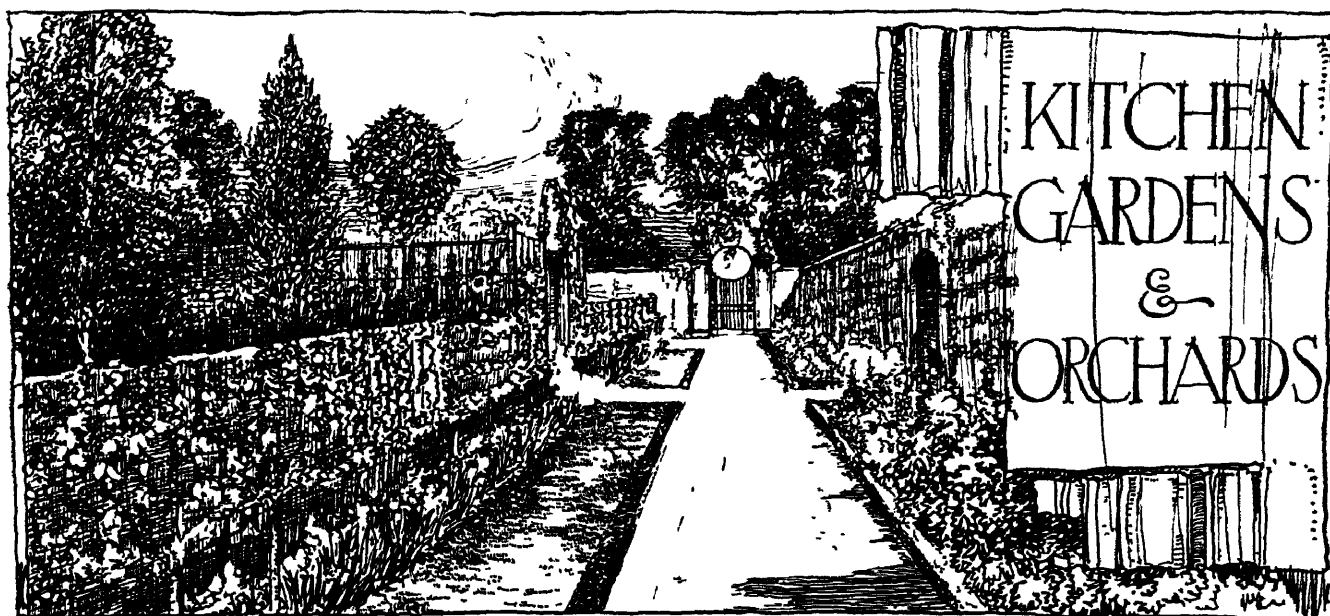


FIG. 343.—ESPALIER FOR FRUIT AND ROSES IN THE KITCHEN GARDEN, DUNCHURCH LODGE.



FIG. 344.—FRUIT ESPALIER AT FOOTS CRAY PLACE, KENT.



## CHAPTER XV.

In Chapter III, where we followed the prospective owner through the process of choosing the site and deciding what use to make of its various parts, the first portion of the grounds to receive attention and to have its locality and size determined was the kitchen garden.

*The placing of the kitchen garden.*

This may seem to be an inversion of the correct order of things, to people who look upon the kitchen garden and orchard as purely utilitarian departments of the domain, to be kept out of sight and as far from the pleasure grounds as possible; but there are many old examples throughout the country, especially in Scotland, which are in every way the most delightful portions of the grounds, giving sheltered walks at all seasons amidst trees and plants "good for food and pleasant to the eye," imparting perennial variety and interest.

To the "soul attuned to sympathy" it is pleasant to wander round a prim walled-in garden, enjoying the fragrance of the blossom in spring, or noting the setting and ripening of the fruit and its various developments through the successive seasons. Thomas Fuller, one of the old English garden enthusiasts, exclaimed:

"Oh the incredible profit by digging the ground! for though it be confessed that the plough beats the spade out of distance for speed (almost as much as the press beats the pen), yet what the spade wants in the quantity of the ground it manureth, it recompenseth with the plenty of the fruit it yieldeth, that is *set* multiplying a hundredfold more than that which is *sown*."

It is easily possible to make the kitchen garden a successful part of the pleasure grounds, and give it æsthetic value without impairing its usefulness. To effect this we have a great asset in the herbaceous borders grown herein, specially for cutting, and in the espaliers for fruit trees, from which pleasant vistas and arches may be contrived. Fruit walls aid the æsthetic effect by giving a sense of snugness, and the glasshouses, as we have shown in a previous chapter, may be made to heighten the effect, also the dipping wells, the tool sheds, and fruit rooms, may receive appropriately quaint treatment; walks which may not only aid in forming vistas but may have their surfaces treated in an attractive manner, and in fact, there seems to be no adjunct to the garden which may not be made pleasant to look upon either from its design or placing.

*Æsthetic possibilities of the kitchen garden.*

Having decided that the construction of the kitchen garden as an addition to the pleasure yielding grounds of the domain is not only desirable but possible, the first question to be settled before commencing its construction is—where shall it be placed? The determining factors are of two kinds, practical and æsthetic, and in many cases



## KITCHEN GARDENS AND ORCHARDS.

they will more or less conflict with one another, and thus the result will be a compromise. In those happy instances where the practical requirements are met under the best conditions, there can be no better plan than that adopted at Wych Cross (Ill. Nos. 324 and 346), or at the "Flagstaff," Colwyn Bay (Ill. Nos. 14 and 345), and again in the plan of Little Onn Hall (Ill. No. 476), in all of which instances the kitchen garden has been so placed that the principal walk gives added length and a more pronounced crosswise perspective to the main terrace walk in front of the house.

### *Aspect*

Foremost of the practical considerations is that of aspect. Ground which has a gentle slope to the south, south-east, or south-west is best, being sunniest. We must also have shelter beyond that which can be given by the fruit walls, either by a hill rising on the north or north-east side, or better still, a wood of well-grown trees. Next in importance, a good soil, which, if it does not already exist, may usually be produced artificially. As to the extent of the kitchen garden, with the improved railway and postal facilities, which in case of emergency, will nowadays bring fruit and vegetables from the nearest town in a few hours, it is no longer necessary to lay out huge vegetable gardens such as are found in many old country demesnes. For a moderate-sized establishment, an acre and a half of kitchen garden is sufficient, independent of the space allotted to the frame ground and range of glass-houses, while, for a small establishment, three-quarters of an acre of cropping ground will be found to meet all requirements. It should be understood, however, that this area will not allow of late potatoes, nor for any space being given up to orchard trees, espaliers, or herbaceous borders, which must be allowed for in addition.

### *Extent.*

### *Shape.*

After aspect and size comes shape, and it cannot be too strongly insisted upon, that a kitchen garden, in which the primary object is utility, should be planned with a view to obtaining the largest possible cropping area with the least walling or fencing, which means that, so far as possible, the lines of the walls should be straight and at right angles to one another. For the purpose of obtaining ample wall space for fruit trees, a parallelogram is better than a square, in the proportion of, say, one hundred and fifty feet to one hundred in breadth, thus securing additional length of wall with a south aspect.

Sometimes, however, owing to the lines of existing boundaries or the division of the land by drives or estate roads, a regular shape is impossible, and occasionally a kitchen garden may with advantage be of unusual shape, as when it is modelled to fit a site with curved contour lines or other peculiarities. Such conditions call for ingenuity on the part of the landscape architect; satisfactory and even strikingly original results often follow upon the solution of special difficulties.

### *Drainage*

Select a position which admits of thorough drainage, especially when the site chosen is in a valley or on low-lying land. A serious mistake is often made in selecting a

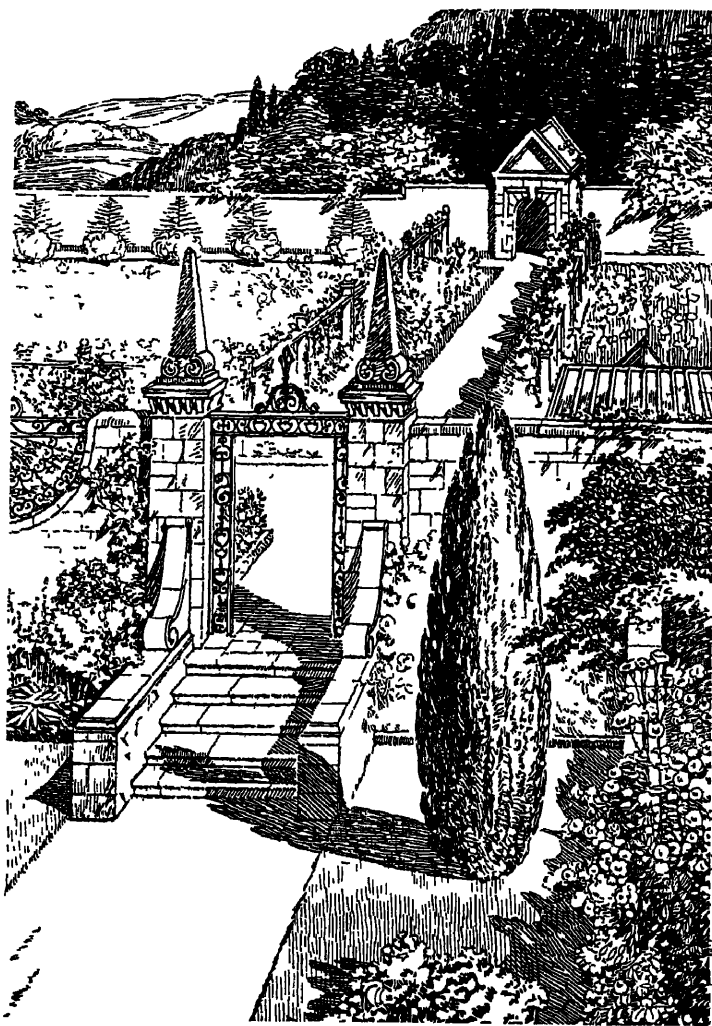


FIG. 345 —CONNECTION BETWEEN PLEASURE GROUNDS AND KITCHEN GARDEN, THE "FLAGSTAFF," COLWYN BAY

## KITCHEN GARDENS AND ORCHARDS

snug, sheltered position in the bottom of a valley, because, the spring frosts are here most troublesome; not because there are more degrees of frost there than on higher ground—there may indeed be less—but because there is more moisture on which the frost can act. If however there be no alternative, the ground in a hollow must be more completely drained.

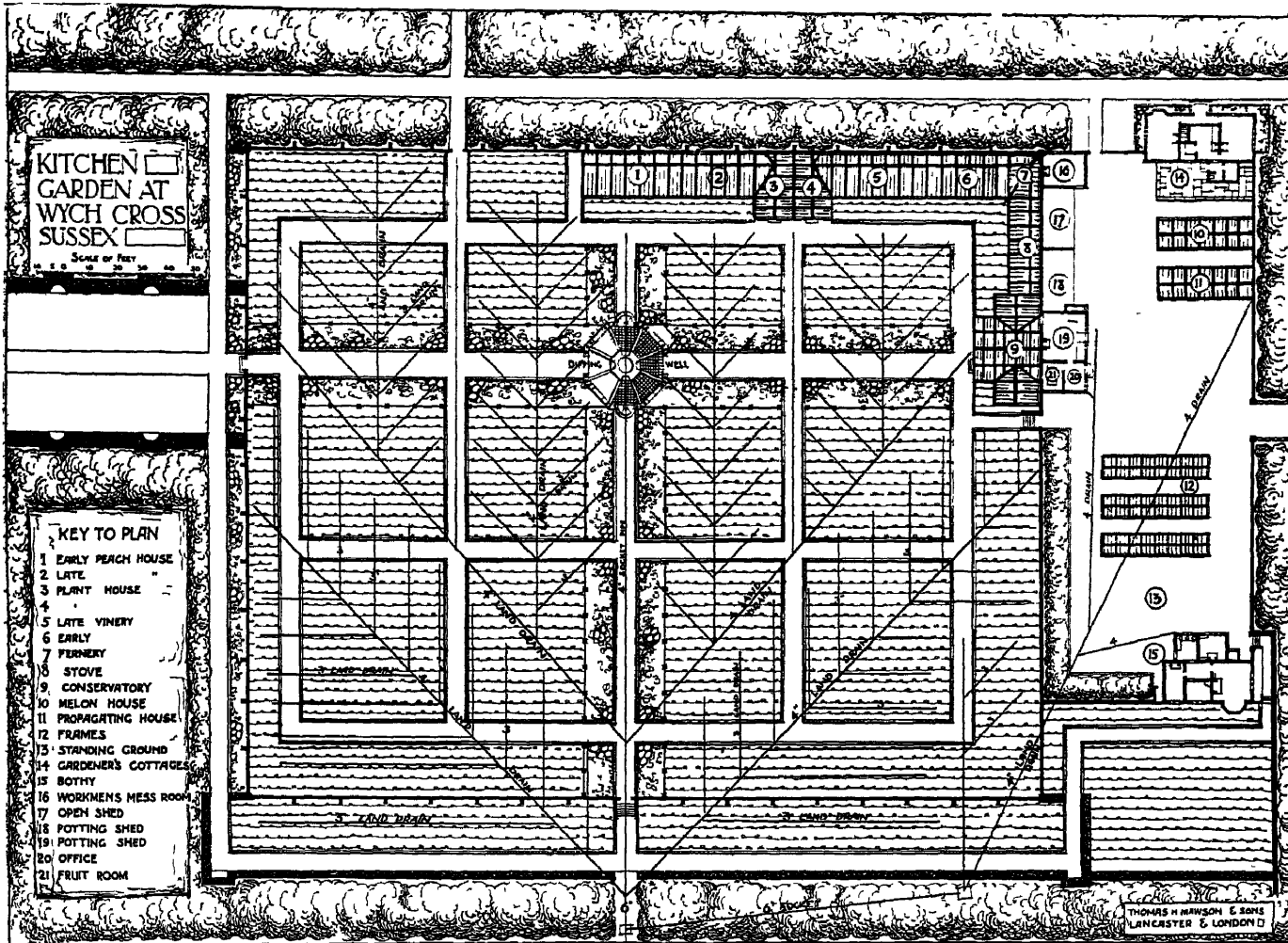


FIG 346

The site having been determined upon and the size and shape pegged out, the first step in the formation will be the enrichment, draining and levelling of the ground, which should be undertaken before the area is walled in, to facilitate the carting or wheeling of materials and composts to and from and about the ground, which is more conveniently done while it is clear. Where draining is necessary this should be carried out first, and the pipes laid deep enough not to interfere with subsequent operations, or become choked with roots. The principles on which it should be done are the same as those for lawns as described in Chapter IX, and their application is well illustrated by the plan of a kitchen garden given in illustration No 346. In this instance the ground has an approximate fall of one foot in twenty-eight towards the house, the soil being deep and fairly retentive. As will be seen, the main drains follow the lines of the paths. They consist of glazed stoneware pipes laid with open joints, and the land drains connected to these are about three feet deep, and in rows eighteen feet apart.

Where the ground is very uneven, it will be necessary to grade it to an even fall, if not over the entire area at least over each section or "quarter" of the garden; economic cropping and upkeep require this. Contractors who undertake to lay out gardens as well as to erect the house, too often bring the subsoil to the top, which, though a commendable way of treating an old worn-out garden, is a mistaken treatment for a new one, where the most fertile soil is near the surface. The best method is to overhand-trench it, i.e., to make two trenches instead of one, throwing the top spit

*Construction.*

## KITCHEN GARDENS AND ORCHARDS.

on to the second trench and the subsoil on to the near one. If, to secure a good gradient, it is necessary to excavate at one part and fill at another, the portion removed should be the subsoil from the bottom of the trench, and not the fertile top soil. In this way, the good soil is always kept to the top.

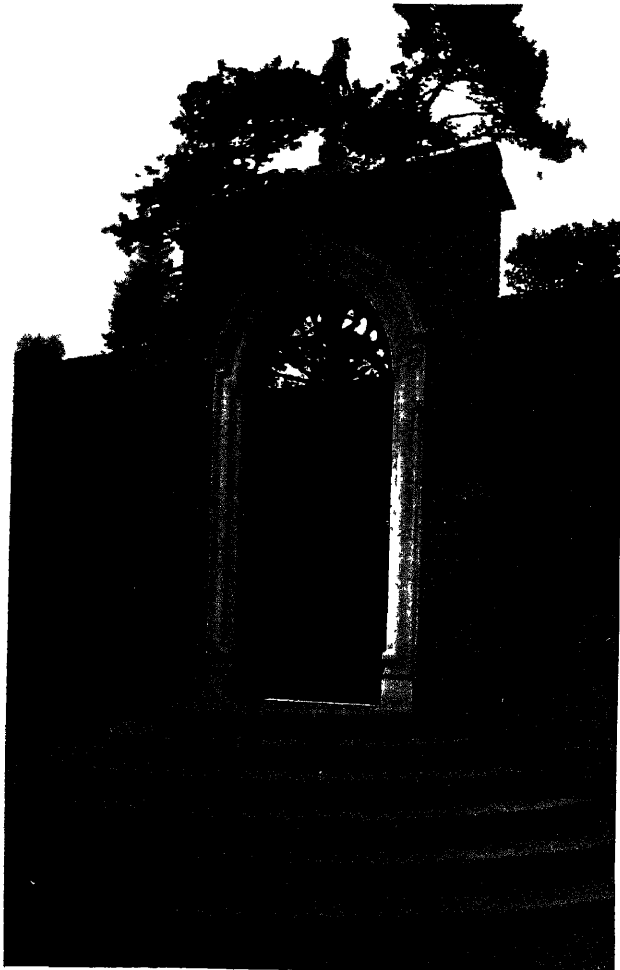


FIG 347—DOOR IN A FRUIT WALL



FIG 348.—DOOR IN A FRUIT WALL.

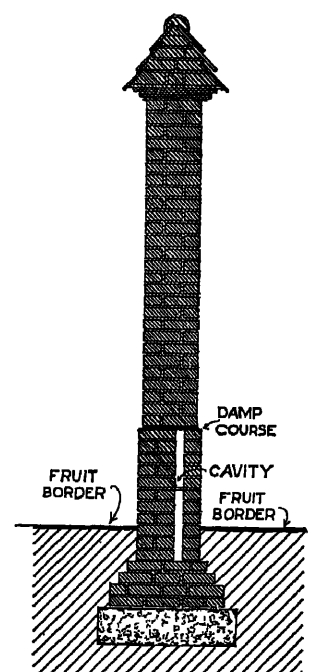
### *Improving the soil.*

Much can be done to improve a poor soil by draining when water-logged, by incorporating lime, road scrapings, burnt ballast or sand where it is heavy or clayey, by the use of clay where the ground is sandy, and by deep and careful trenching as described above, adding to the soil already on the ground that taken from the site of the house when house and garden are being made together, also that from the new walks, the site of the glasshouses or potting sheds, or anywhere it can be spared. To enrich the subsoil, add liberal supplies of manure, cow manure for light land and horse manure for heavy land, and old lime and screened rubbish from old buildings for heavy clay or peaty land.

For convenience in working, the garden should be divided into plots or "quarters" approximately ninety feet long by sixty broad. The length should, if possible, run east and west, so that the cropping may be the short way of the quarters. This reduces labour, and at the same time ensures to the crops the greatest amount of sun.

### *Fruit walls*

After the ground formation come the walls. Brick walls are undoubtedly the best, but where stone is the prevalent building material, the garden walls are more becoming in the latter material. Brick is the best constructionally, for it allows of a cavity wall which ensures greater warmth and dryness and so helps the ripening of the fruit. It is also more necessary and more expensive to wire a stone than a brick



FRUIT WALL

FIG. 349.



FIG. 350.—A GRASS WALK IN FRUIT GARDEN.



FIG. 351.—CENTRAL FEATURE IN THE KITCHEN GARDEN, THORNTON MANOR.

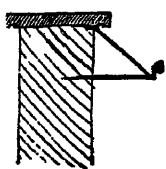
## KITCHEN GARDENS AND ORCHARDS.

wall as brick facilitates nailing. Both stone and brick walls should be cement pointed, otherwise they harbour garden pests, and where the foundation rests on clay, either wall will require a damp-proof course, placed some two or three brick courses above the ground level. For training the fruit trees successfully, it is desirable that the walls should have a plain, unbroken face on the side facing the kitchen garden, but on the other side facing the pleasure grounds, the appearance is improved by introducing such features as pilasters, or buttresses, to harmonize with the terrace walls or other adjacent structures, and it is even possible, of course, to build the wall so as to show a brick surface on the inside and stone on the outside. In a district where large flints abound, the outside might be built in the flint work, which looks so quaint in old country churches, with piers of roughly squared stone or brick.

### *Doorways.*

The doorways, especially those leading to the pleasure grounds and house, should receive careful treatment. Suitable arrangements will be found in illustrations Nos. 347 and 348. In certain positions, a quaint gateway similar to that shown in illustration No. 77 would give added interest.

The heights suitable for fruit walls vary according to the aspect and the amount of shade they will throw on to the garden, those on the north, east and west being higher than that to the south, the north side of which would face the garden. The north—that is the wall with a southern aspect—might be twelve or fourteen feet high, the west and east walls nine to ten feet, and the south wall seven to nine feet high.



Many fruit walls are only nine inches thick, but a far better result is obtained by building them fifteen inches thick, and hollow for at least the first two feet of their height, as shown on the accompanying sketch (Ill. No. 349). For copings, a hard flag-stone two and a half to three

FIG. 352. inches in thickness, projecting two and a half inches on each side of the wall and having a water-drip groove on the under side of the projection (Ill. No. 352), does just as well and looks much neater than more expensive forms of coping. Where stone is costly, a coping similar to that shown in the accompanying sketch (Ill. No. 353) may be adopted, consisting of bricks set at an angle and resting on projecting courses of tiles or slates, and if additional ornament is required, corbelling out brick headers under the tile courses so as to form a dentilled course would add very little to the cost. It is advisable to build into the wall under the coping, iron brackets known as "board irons" on which boards may be laid as a protection to the fruit trees in the spring, in the manner shown on the same sketches. The irons may be used later on to fix bird netting.

### *Wiring walls*

The ordinary and most economical method of wiring a wall is on the principle adopted for the espalier shown in illustration No. 356. The wires should be placed twelve inches apart, commencing eight inches from the ground and one and a half inches from the wall in order to allow the fingers to pass behind the branches when tying in. The necessary eyelets and fasteners for end straining bars should be built in as the work proceeds; it is a great mistake to break into the completed wall in order to insert them.

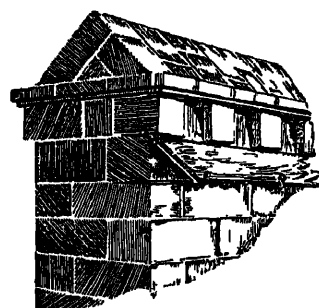


FIG. 353.

As stated in the previous chapter, when not provided for in a separate department, the vineries, peach houses and other glass houses are generally built against the south side of the north wall, which ensures the greatest amount of light and sun, but they may also be built with an east or west aspect, and this is often the most economical method of treating fruit houses. The portions of the walls not occupied by glasshouses should be used for choice hardy fruit trees of varieties suitable for the aspect. Thus, on the walls facing south, peaches, apricots, Coe's golden drop plum and the better

varieties of pears and apples may be planted. Walls having a western aspect grow excellent crops of apples, pears and plums; the eastern aspect grows choice pears and plums. The northern side of the north or south walls might grow morella cherries and red currants. It would be impossible to give here lists of fruit trees suited to all localities and soils; this subject in itself deserves, and moreover has, volumes devoted to it. Unless the object is to render a public service by experiments, the best of the varieties which are known to flourish locally should be planted. Fan-shaped wall or espalier trees should be planted only as young trees, but cordons or candelabra shapes may safely be obtained in fruiting sizes, especially pears

Fruit borders should be from fifteen to eighteen feet wide and, for the sake of symmetry, the same width from each wall. They require careful making, especially on heavy lands, where the whole of the surface soil should be carefully thrown back and a layer of broken stones, bricks, rubbish or burnt clay spread over the ground to a depth of at least ten inches, the ground having been first thoroughly drained. On the top of this rubbish, spread a layer of good turf from an old pasture, or if this is not obtainable, a layer of half-rotted stable manure; the soil may then be thrown back and more added until there is a depth of at least two feet with a rise of nine inches from the front of the border to the back. These borders can be used for the earliest crops of vegetables and salads, or for strawberries.

*Fruit borders.*

In soils which do not lie on chalk or limestone, old mortar or wood ashes and also a sprinkling of crushed bones, should form a fractional part of the compost of the fruit border, otherwise stone fruits will almost certainly fail.

The planting of the trees is not generally conducted with the care it demands. Not only is insufficient time allowed for the borders to consolidate before planting but the roots are put in too deep and without proper arrangement. Instead of this they should be carefully spread out at the top of the border and the soil rounded up over them to a depth of four to six inches. No manure should be placed under the roots, but added as a top dressing to induce surface rooting. In stiff clay soils, it is advisable to lay slates or tiles under the brick or stone drainage, to prevent the penetration of tap roots into the cold subsoil.

The paths may be made either before or after the formation and planting of the fruit borders, according to the amount of time available before the planting season, for nothing must be allowed to delay the latter work from one season to the next. Only

*Paths*

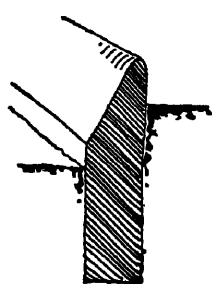


FIG. 354.

when the garden exceeds four acres in extent will it be found necessary to make a cart road through it, but the walks should vary in width according to their use. The kitchen garden at Dunchurch Lodge (Ill. No 343) presents a typical example, and here the main walks were made nine feet wide and the minor paths six feet, widths which have proved ample. For gardens of an acre in extent the principal path might be six feet six inches broad and the minor paths only five feet. In the kitchen garden it is possible to adopt a form of material which would not be suitable for the flower garden or terraces, but whatever the material used, it is very important that they should be well made and efficiently drained, as they are subjected to hard wear, and a poorly constructed path is soon cut up. A good and effective method is to lay a narrow band of York stone flag or "granolithic" patent stone along the centre of the path on which to run the barrows, and to take also, most of the pedestrian wear. If, on either side, this strip is backed up by cobble paving with a stone edging to the beds, such as that shown in illustration No. 354, the result may be very good, and has the further advantage that, after a shower, when the flat flags are very wet to the feet, the rounded surfaces of the cobbles lift one out of the water, which runs away between the stones. The gardener may object to the latter material

## KITCHEN GARDENS AND ORCHARDS.

on the score that weeding between the cobbles is tiresome work, but if they are laid in cement, no weeds will grow, while, in other cases, an occasional sprinkling of boiling water, especially if a little weed-killer is added, will completely remedy the evil. In brick districts, paving in red bricks, as shown in illustration No. 132, gives a pleasant colour contrast with the greenery, an advantage shared with red shale and burnt ballast. These latter materials, however, have a troublesome way of picking up badly after a frost, that is, they stick to the boots in heavy masses, leaving holes in the path at every step. Tar paving may be used in the kitchen garden with success.

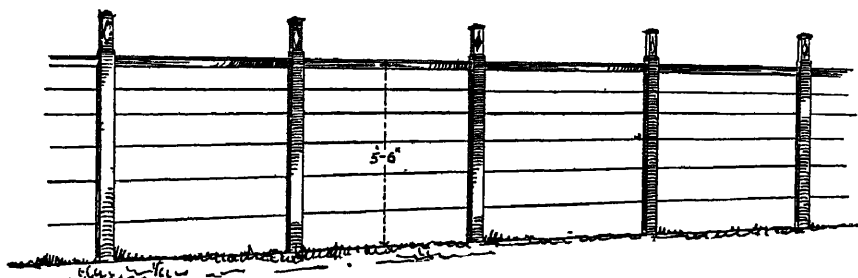


FIG 355

*Edgings to beds.*

All the remarks as to stone, brick or terra-cotta edgings for walks given in Chapter IX apply equally to the kitchen garden, but whichever of these is adopted, it should be

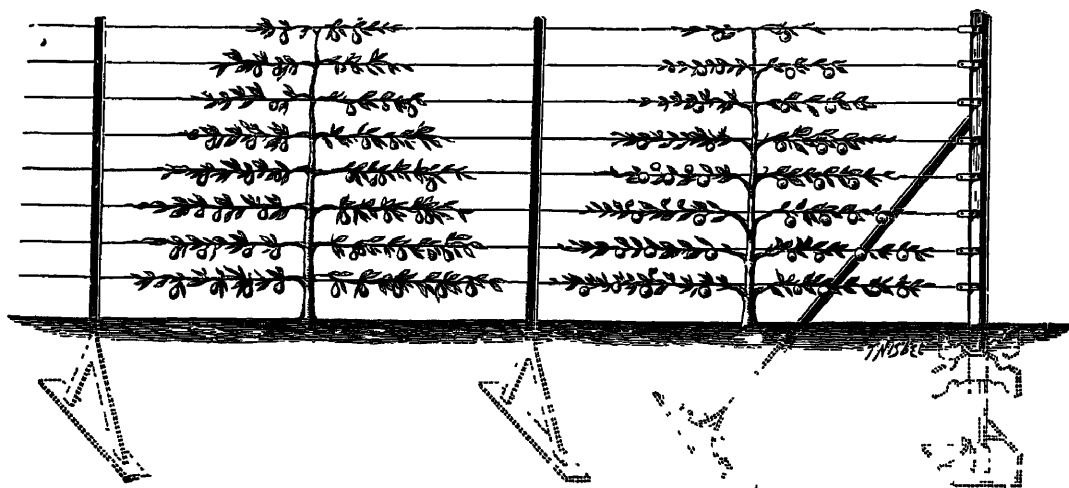


FIG 356.

laid in cement so that it may not be disturbed by digging operations. Grass is not suitable for edging ordinary kitchen garden paths unless in those rare instances where it can be laid in very

broad strips, but it may be used where herbaceous borders line the walk. Occasionally a central grass walk nine to twelve feet in width, flanked by deep herbaceous borders and enclosed by yew hedges, secures a pleasing connection between the pleasure grounds and the kitchen gardens. Such paths may with advantage be edged with flat stone flags, as in illustration No. 173.

*Water supply.*

A proper water supply for the garden is important and, where this cannot be obtained in the ordinary way, large cisterns should collect the rain-water from the roofs of glasshouses or other buildings. However the water be obtained, it is much better if exposed to the sun and air for a few hours before use, and this is best done by the provision of a dipping well, such as has already been described when speaking of fountains. In most gardens, the best way is to make this feature the central object in the design up to which everything leads, and to place it at the intersection of the two paths across the centre of the garden. In many cases, one of these walks will be spanned by a fruit espalier, while the other will pass between the herbaceous borders, which in turn will be backed up by clipped hedges, so that whichever way we look from the central point, an interesting vista will be provided, especially if each is closed at the opposite end by an interesting gate, fruit room, arbour, or the central gable of a range of glass. These considerations open up the opportunity for many delightful arrangements and justify the sacrifice of a little more ground round the dipping well for

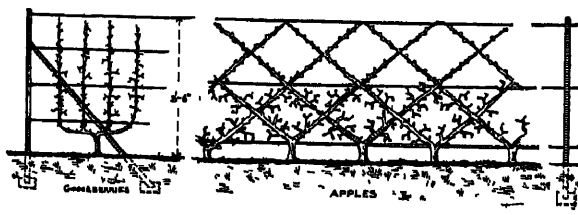


FIG. 357



a circular or octagonal open space than would otherwise be conceded, so as to allow of garden seats facing the well with its fountain jet, and backed up by an arrangement of festoons of rampant roses supported on pillars, which are particularly useful in supplementing the flowers from the herbaceous borders for house decoration, or where more shelter is required, the clipped hedges which form a background to the herbaceous borders may be carried round the gravelled circle surrounding the dipping well, arches being formed in them where they cross the paths. Illustration No. 351 shows a typical arrangement of this kind

*Dipping wells.*

Fruit tree espaliers and bowers are not only interesting structural features in the garden, but are also economical; they occupy but little space, and with properly trained, healthy trees, give a large return for the space occupied. These bowers also furnish a tempting opportunity, which the rigid culturalist and stern economist will pardon, to enliven the over-apparent expression of bare necessity in the modern kitchen garden with a wealth of roses, assigning the principal supports to them, with fruit trees in the interspaces. Such a bower walk may even be erected outside the kitchen garden, and lead from it towards the pleasure grounds or the garden entrance of the house.

*Espaliers.*

Espaliers are formed of iron, iron and wire, wood and wire, or wood and iron, or all three of these materials. Although espaliers constructed entirely of iron standards and

strained wire are most usual, a freer effect is obtained by the use of wooden posts and top rail with strained wires passing through the posts as shown in illustration No. 355.

Wood allows of a more artistic treatment, and although less

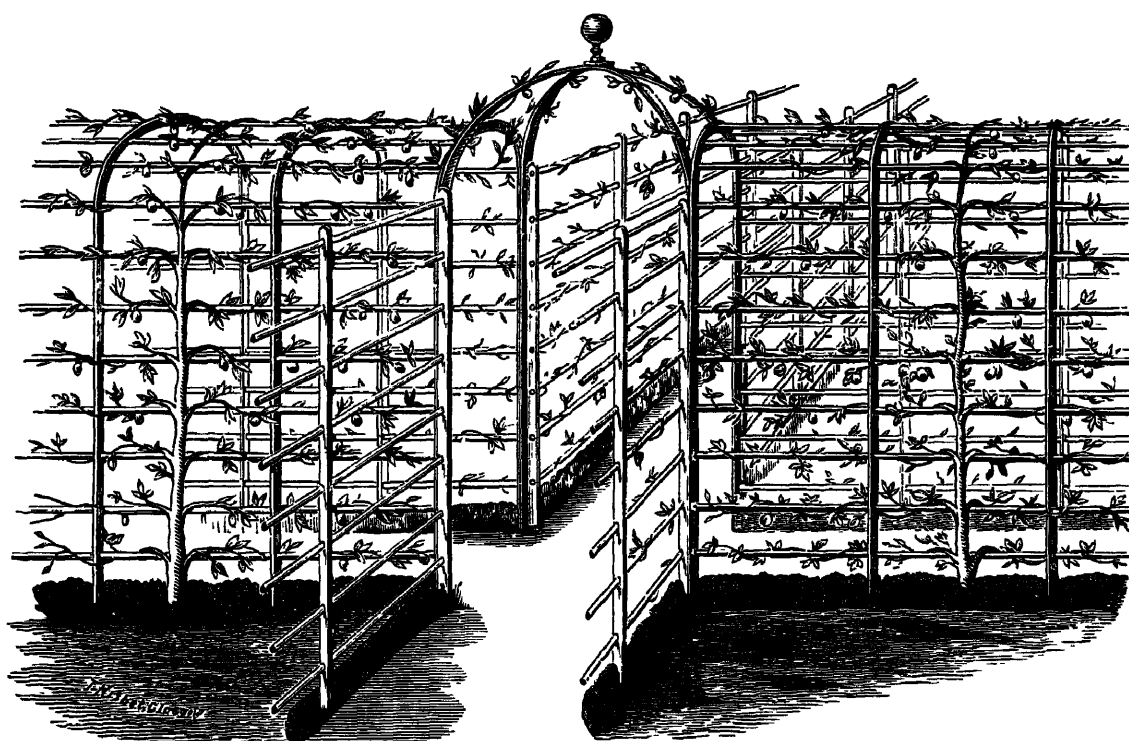


FIG. 358.—ESPALIER OF IRON THROUGHOUT.

durable than iron, is better for the plants, as the cold iron checks the tender buds.

The most usual iron espalier is that shown in illustration No. 356, and in a more elaborate form in illustration No. 358, the latter being used with effect in the gardens at Trentham, the long bower at this place being over-arched with pear trees.

Another arrangement of a similar kind may be made by placing a low espalier, such as the one shown in illustration No. 357, close to the walk, and the taller one behind it, with a border between. The effect of this arrangement is clearly seen in illustration No. 350.

An effective espalier with wooden posts and bays of iron trellis between them is shown in illustration No. 359. As will be seen it is so designed as to meet a very considerable fall in the ground, and the trellis is arranged in a series of bays so as to give shelter to the flowers planted between. Another wood and iron espalier is seen in the accompanying views of the fruit garden at Foots Cray Place, just referred to, where ornament was the prior motive in its arrangement, the fruit branches being trained to thin wooden laths in the French manner.



## KITCHEN GARDENS AND ORCHARDS.

The arrangement and training of fruit trees on espaliers has been brought to great perfection by the French horticulturalist, who by his special methods cleverly secures the greatest fruit-bearing capacity, together with a very beautiful arrangement of branches. He aims at getting the greatest amount of fruit-bearing wood on any given area of wall or espalier. The branches, whether in the form of upright cordons, fan shaped, candelabrum or horizontal, are twelve inches apart; there is no waste of wall space, yet no tree is allowed to encroach upon its neighbour. Here is a useful lesson which our continental neighbours may teach us, as the method is in every way adapted to English gardens, and a successful example is given in illustrations Nos 344 and 350. It is well to remember, however, that just as with us topiary work often degenerates into grotesque vegetable sculpture, the cleverness of the French gardener sometimes leads him to attempt absurd forms, such as tables, balloons, birds and beasts; which are to be avoided.

*Fruit  
rooms.*



FIG. 359 —WROUGHT-IRON FRUIT ESPALIER IN THE KITCHEN GARDEN, WOOD, DEVONSHIRE

An important adjunct of the kitchen garden is the fruit room. Every hostess knows the risk and anxiety of keeping, say, a cherished tray of specially good dessert apples or pears, and much money is often spent on elaborate erections to ensure good keeping. A well-constructed fruit room, such as the one shown in illustration No. 360, is in any case needed if grapes are to be kept, but for apples, much simpler methods may be adopted. The flavour and freshness of the kindly fruits of the earth, particularly apples, can be conserved, and flowers retarded, by making a dug-out room (Ill. No. 361) and excluding the light and the free circulation of air in order to lessen the natural evaporation. Above-ground fruit rooms built of match boarding and liberally insulated with ground cork, or thatched on both roof and sides (Ill No. 363) are practicable but somewhat expensive. Economy

suggests an entirely under-ground room such as that shown in illustration No. 362, which could be covered over with a sufficient depth of earth to ensure an equable temperature. Compact planning would direct that this room be sunk under one of the garden offices or under the cold storage, or as an independent underground room with a roof of arched concrete, but in any case it will need a regulated ventilating shaft at each end, double doors at one end, and a small window opening on to an area at the other. A damp earth floor is essential to fruit preservation.

To explain and enforce the above remarks relating to kitchen gardens, illustrations are given of several designed by the author.

*Examples.*

The first (Ill. No. 364) is the plan of a kitchen garden of nearly two acres, designed for a client in the United States, and illustrates a case where, on account of the

## KITCHEN GARDENS AND ORCHARDS

peculiarities of the site, the garden cannot be square in shape. The site of this garden was previously cut up into a number of small plots containing frame cottages, which

*Examples.*



FIG. 360 —A FRUIT ROOM

have now been removed to a more secluded position, and there erected according to an ordered plan. The garden required comparatively little grading, excepting at the north and south ends. At the north it was found necessary to erect a retaining wall, and at the south, or narrow end, to fill up some five feet. As is usual in America, hedges were planted in preference to expensive walls

In illustration No. 365 is shown the kitchen garden at the Manor, Thornton Hough, Cheshire, the seat of Lord Leverhulme, which is a good instance of adaptation of the plan to the special conditions of the site; the garden of about an acre and a half is set angle-wise to the house but parallel to a boundary wall and bridle path. Here the primary object was to provide sheltered walks convenient to the residence and connecting directly with the principal terrace walks. The plan of this garden should be compared with

the photograph of its central portion given in illustration No. 351, which gives a good idea of the treatment of details. This scheme is part of a connected formal garden, but the same principles might be adapted to many places where the details would, for reasons of cost, be of the simplest description.

An effective kitchen garden placed close to the north side of a house adjoining the carriage court, embodying the principles and requirements already advocated is given in illustration No. 323. This garden is entered by a wrought iron gate from the carriage court, and a view is obtained from it down the central path of the garden, which is constructed on the principles already explained, terminating in a conservatory placed against the north wall of the garden, with plant and fruit houses arranged to right and left. Near the centre of the garden is a circular dipping well with a simple upright fountain jet, and on each side of the walk is a border six feet wide for hardy perennials, flanked by fruit espaliers. At regular intervals flower-grown arches

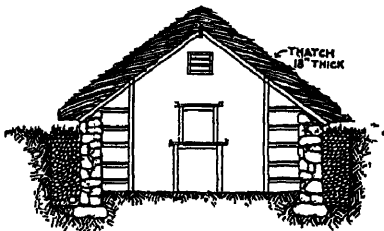


FIG. 361.

span the walk, giving, as viewed from the Carriage Court, the appearance of a continuous bower. The ever-green shrubs flanking the conservatory would supply the necessary touches of green in winter, and might be supplemented by bay trees in tubs at sheltered places, which

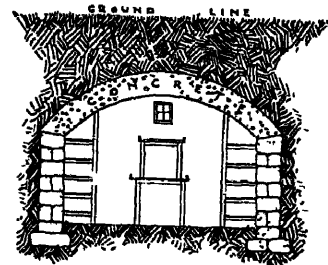


FIG 362.

are not out of place in the kitchen garden, the leaves being indispensable for flavouring purposes.

There are three adjuncts of the domain so intimately connected with the kitchen garden both in planning and purpose as almost to form parts of it. These are the frame ground, the reserve garden and the orchard. The first of these, with its various

*Frame grounds.*

## KITCHEN GARDENS AND ORCHARDS.

### *Frame grounds*

erections such as potting sheds, tool houses, fruit rooms, places for ladders, wheelbarrows, garden rollers and lawn mowers, bins for composts and manures, and standing ground for chrysanthemums and other plants which require plunging, has already been mentioned in dealing with glasshouses, and it is only necessary to add that it is a wisely directed forethought which studies the comfort and convenience of the garden staff, especially where several young men are employed. In the severity of winter, men living at a distance are liable to neglect the fires and the protection of their frames; there must therefore be a thorough system of oversight by the head gardener, often extending beyond ordinary work hours. This necessitates the gardener's cottage and a bothy being placed at or near the gardens, as in illustration No. 346, and in direct connection with the frame ground. The sheds in the frame ground should also be ample to allow for the whole staff to work under shelter on wet days.

In the illustration just referred to is given a drawing of the frame ground at Wych Cross, Ashdown Forest. This is part of an extensive garden laid out about twelve years ago for Douglas W Freshfield, Esq., and is supplemented by a stick and manure yard some one hundred yards distant but in convenient relation to it. It gives the accommodation necessary in the frame ground for a moderate-sized country house. This part of the garden does not to-day receive the care and attention formerly devoted to it, though it would seem to be more necessary than ever, for it is here that so much of the best work is done, and upon its plan and arrangement depends in a large measure, the tidiness of other parts of the garden. It is the gardener's workshop and warehouse for his raw materials.

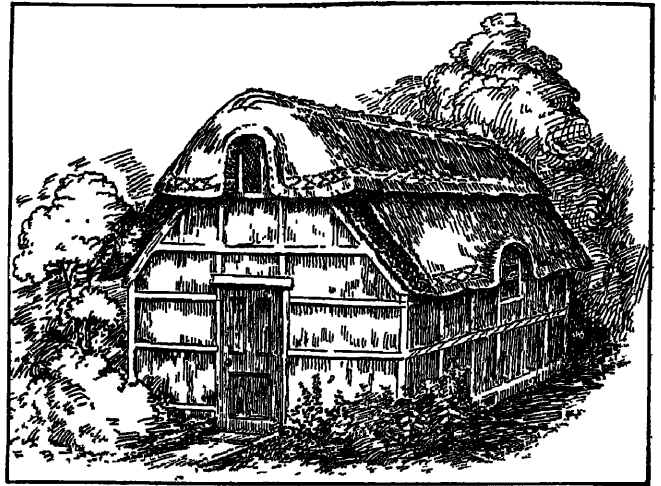


FIG. 363

### *Reserve garden.*

In most gardens, except those of very moderate extent, a reserve garden should be arranged for, or a grassy or garden orchard formed, a place where relief may be found from the effort and ambition of producing the largest fruit of the most striking varieties. The reserve garden has shorn grass paths with espaliers, damson, crab and cherry trees, supplemented with a wealth of herbaceous borders and overarching wreaths of roses, but is not so prolific as the garden orchard.

### *Orchards.*

More romances of fiction and song have been laid in an orchard than anywhere else, for, if rightly considered, it is the one part of the domain above all others which speaks of seclusion, peace, quiet and rest, and close communion with nature and rural pleasures. It is the garden of romance and song, of birds and bees and flowers, of tender memories and peaceful sights and sounds, where "Nature painteth all things gay," where the profuse Siberian and John Downie crabs vie with the apple and cherry blossom, and the free rambler roses are allowed here to clamber up the apple tree stocks, or in free and wild profusion, to form an embowering thicket, with the snug recess where are the bee hives amidst marsh mallow flowers. Here the grass may be allowed to grow up and exhibit its luxuriance and variety, variegated here and there, in the seasons of blossom or fruit, with drifts of daffodils or meadow flowers.

The sense of quiet remoteness and peaceful seclusion which is the chief charm of most old orchards is best attained by so designing them that they are approached through one of the flower-bordered or fruit-embowered paths of the kitchen garden, which is in itself an enclosed garden. Very often one main path through them leading to a quaint but simple gate communicating with the home park or a pleasant field path,

## KITCHEN GARDENS AND ORCHARDS.

may be gravelled, but other ways about the orchard itself are better laid down with broad paths of closely shorn grass, and where they are so much used to make it difficult to keep the turf green, a strip of the green Westmorland flag may be laid along the centre. This material may be obtained of a shade suited to the colour of the grass. The boundary may be formed of a thick hedge of cluster roses, or better still, of the fruitful cut-leaved blackberry, festooning a rough wattle fence and allowed to grow high enough and thick enough to secure seclusion.

Dwarf bushes undoubtedly soonest yield an abundant crop of fruit, but the orchard of sentiment designed is more appropriately furnished with the older fashioned standard fruit trees. All the remarks regarding the planting of wall trees in the kitchen garden also apply to these, except, of course, that the young trees would be fastened to strong stakes let well into the ground, and that it is necessary that the grass should not be allowed to grow within two or three feet of the stems until they are well established. When the fruit trees are well grown, the neighbouring kitchen garden will benefit by

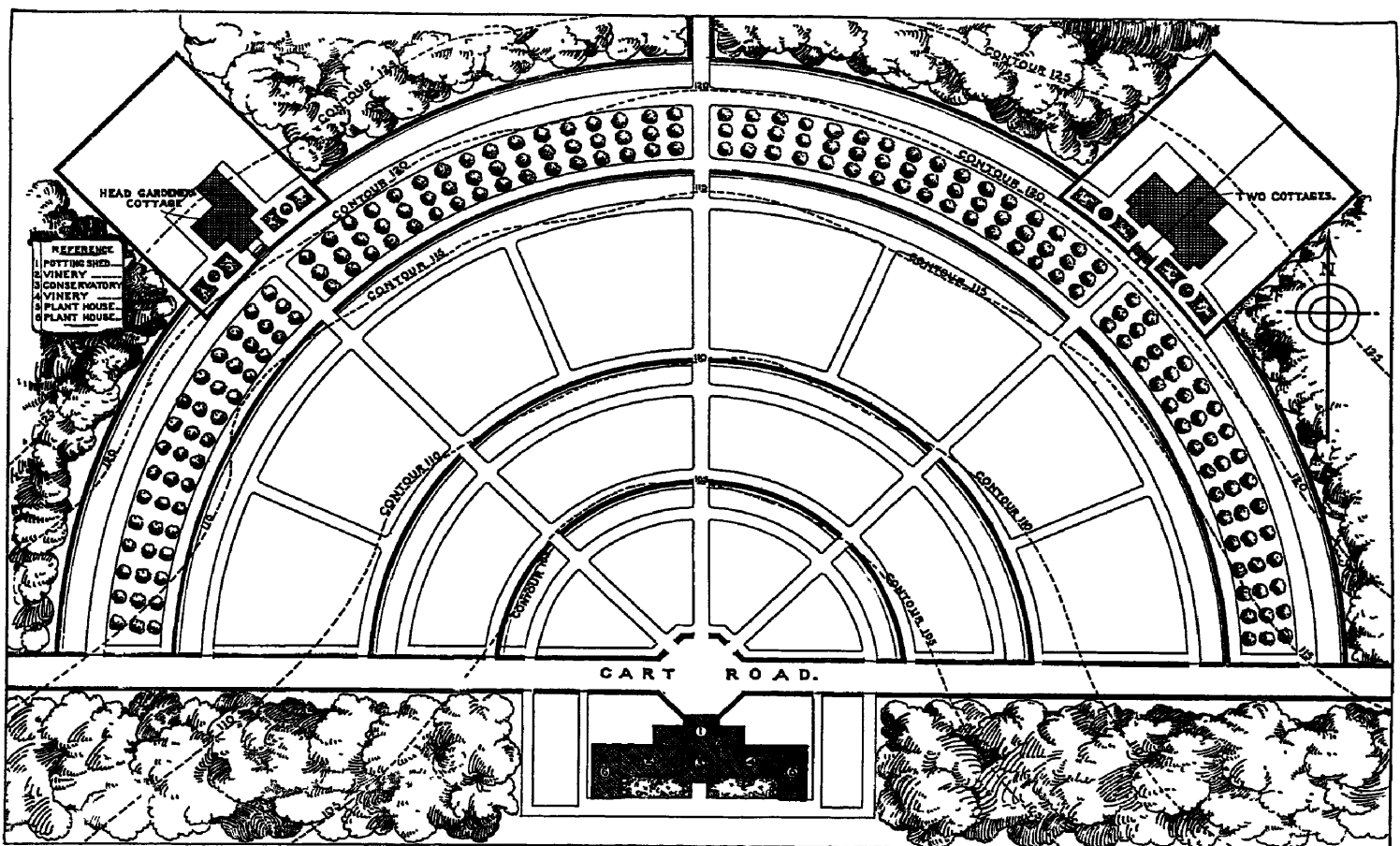


FIG. 364.

their presence, for they will form an efficient wind screen, and their free and unrestrained limbs appearing above or overhanging the fruit walls will give a pleasant note of contrast, especially when laden with blossom or fruit.

The chief charm of the typical English orchard is, as we have already said, its air of old-world peaceful seclusion, and in laying out a new one we should make the attainment of the same atmosphere, as far as is consistent with its surroundings and purpose, our chief aim. This can only be done by a very careful consideration of all the details and furnishings, which must be simple and unostentatious in their design and solid in their construction. Of course only a few accessories are possible, but we may have a simple circular seat round the base of an apple tree or a straight one with a tiled canopy or pent roof over it at the end of the principal walk.

We may even have an enclosed aviary with its details carried out in carefully proportioned trellis work after the manner of that which so often accompanies the

## KITCHEN GARDENS AND ORCHARDS.

verandahs and balconies of Georgian mansions, and of course there are gates, doors, fences, steps and other utilitaria of the design upon which we may exercise artistic ability and taste. What could be more charming for instance than profuse masses of bloom overtopping a little lych-gate or seen in inviting glimpses through the open panels of a door in an arched doorway, or a fence constructed of materials which strike a local note, and swathed in masses of rampant roses.

By this and similar means, the orchard may be made one of the most attractive portions of the domain, from early spring to late autumn. First will come the snow-drops nestling round the stems of the trees, to be followed by carpets of brilliant single

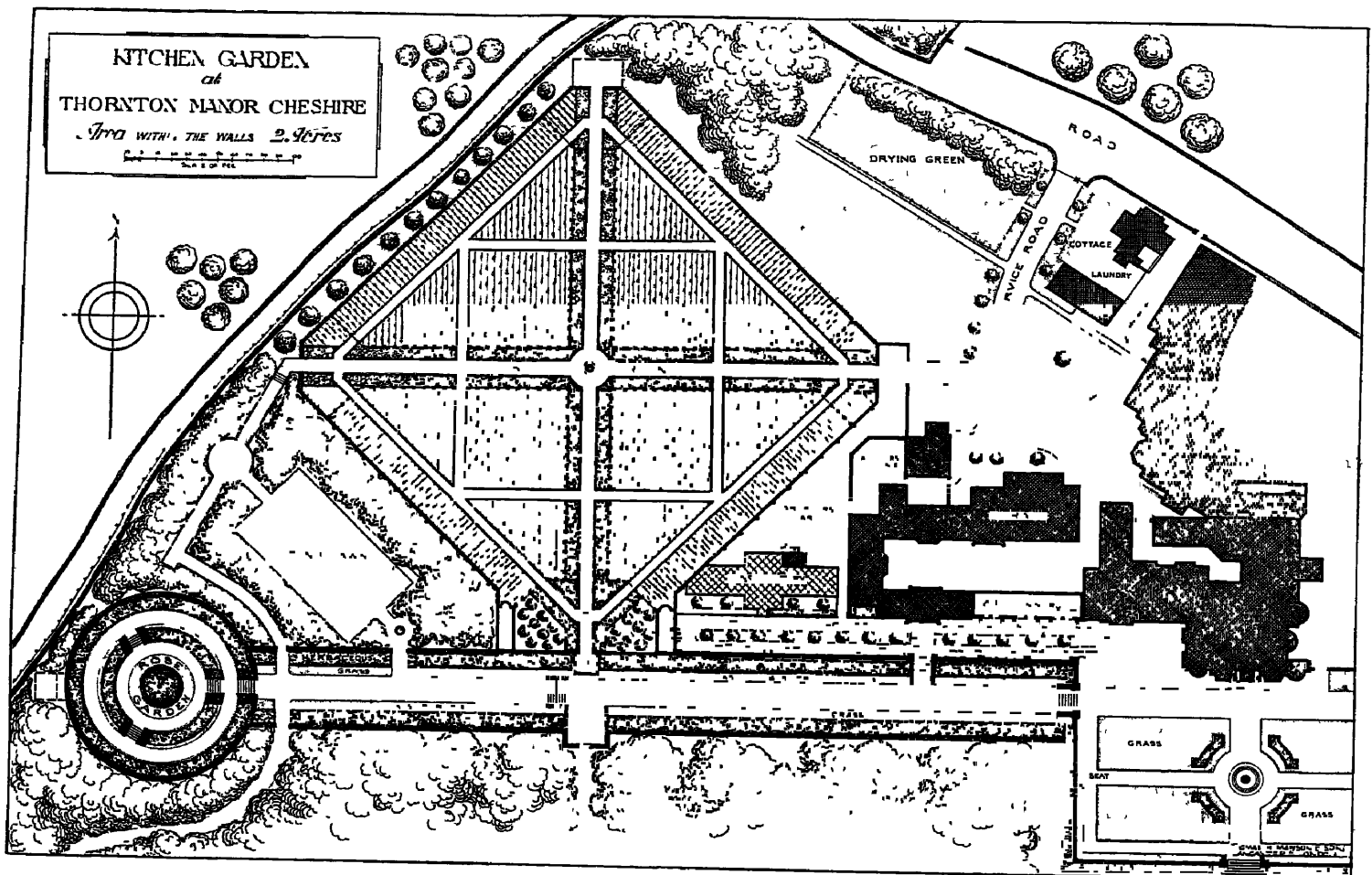


FIG 365

daffodils accompanied by clusters of primroses on banks and under the fences, which in turn will give place to scented violets, but not before the whole orchard has put on its gorgeous panoply of white and delicately pink blossom. From the time this has disappeared until the fruit begins to ripen, the orchard will be gay with roses trained over the fences, and, after the main fruit harvest is over, the Virginia-creeper, trained over the arbour or lych-gate, may prolong its autumn glory; and even in the depth of winter, one or two old apple trees may be given over to the cultivation of mistletoe, so that throughout the whole year this delightful feature, with its stores of old associations, may provide variety and attraction





FIG. 366—GARDEN AT HAMPTON-IN-ARDEN.





## CHAPTER XVI.

Of avenue carriage drives we have already spoken in another chapter. Those now dealt with belong to a different category, being purely a part of the ornamental portions of the domain and considered solely as a feature in themselves and not merely as an effective addition to a necessary roadway.

*Green  
avenues.*

The opportunity rarely occurs for the formation of an avenue on the grand scale adopted by the gardeners of the Renaissance, such as the triple avenue at Badminton, two and a half miles long, as described by Kip, the centre space two hundred feet wide and the side aisles each eighty feet. Noble stately avenues may even yet be planted but with due caution, because, being essentially an expression of stateliness, they should therefore lead up to some building of a scale and size sufficient to give them an adequate object on which to focus their pronounced perspective and to close the vista.

A form, of which many fine examples are still in existence, is the radiating avenue, which generally consisted of a number of avenues starting from one point and intersected by others arranged in a similar manner. The accompanying illustration (Ill. No. 367) from "Loudon's Suburban Gardener" conveys an idea of such an arrangement. The large square bosque and the two principal radiating aisles would certainly be impressive, but such a multitude of avenues as is here shown would cover a large area of ground and would be pleasant only during the summer months. Where there is an unlimited extent of fairly level parklands, and where the distant views are unimportant, radiating avenues, if strictly in scale with the central mansion, may be very effective.

Both these classes of avenue are the accompaniment of architecture on a very large scale, and form a part of an extensive domain, and thus lead to the question—"Are avenues to be the accompaniment of palatial architecture only?" I can only reply that I have never proposed one, excepting when it led up to an important building, considering an avenue of fully-grown forest trees to be entirely out of scale with a small house; but there are many examples of moderate-sized residences designed in the Georgian or Italian renaissance styles where short avenues, framing fine landscape views, are entirely in keeping. Such avenues are by far the most effective when placed on the east and west sides of the house, and running east and west, they provide green wings to the mansion as viewed from the south front. In continental countries these wings of foliage are used as a definite factor in the architectural composition and are pleached to a formal line. Avenues arranged on the north, east or west sides of a house give an excellent framework of trees as a background to the mansion, but they should not be allowed to monopolize the entire landscape, or approach too near to the house, and shut out all views from the windows or keep it always in shadow, especially on the south side.

If the avenue is over five hundred yards in length, it may have two rows of trees at either side; but if shorter, only one row on each side. The length of the avenue



## THE FORMAL ARRANGEMENT OF TREES.

and the scale and style of the architecture which it graces will together with the local conditions of soil and climate decide the variety of tree to be planted, and will regulate the width and distance apart. For an ordinary avenue of about a hundred yards in length, fern-leaved beech, ilex or other trees of moderate size would be most suitable, the distance between the lines of trees being not less than twelve paces, and the trees in the rows eight paces apart. For an avenue of five hundred yards, the trees might be of stronger growth, such as elm, lime, sycamore or chestnut, placed ten paces apart

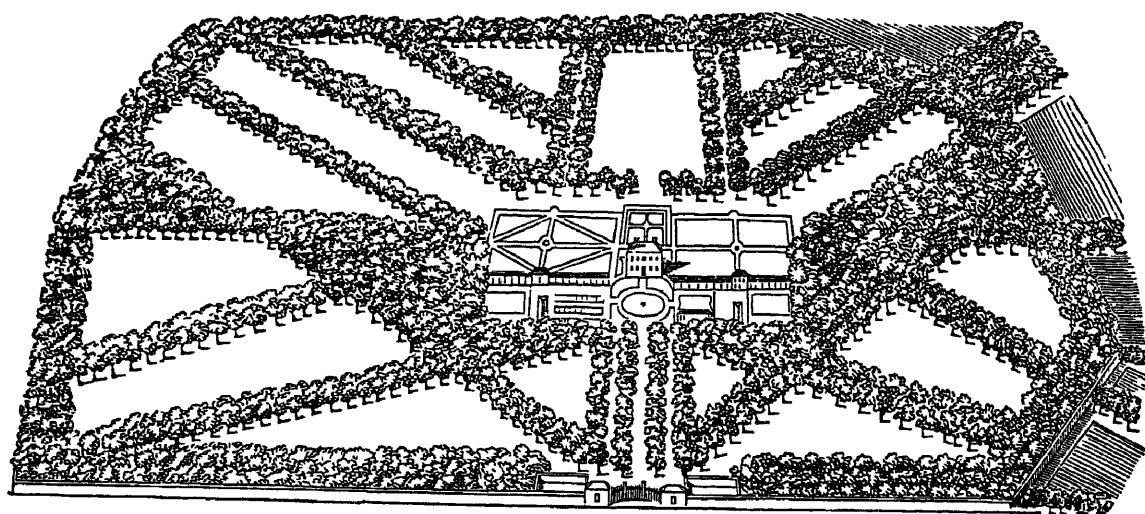


FIG 367

in the rows, the latter being from fifteen to twenty paces apart. To obtain an early effect, double the number of trees may be used and

planted half the distance apart in the rows, alternate trees being removed as soon as they begin to touch each other.

A local note may often be struck by forming an avenue of some tree which is specially characteristic of the district, especially when the tree adopted is one not usually chosen for this purpose, but is known to thrive particularly well in the locality. Exceptional trees may also be used with great effect in exceptional circumstances such as the avenue of *Cedrus Libanii*, at Preston Hall, Maidstone.

Where the ground on which the avenue is to be formed is at a much lower level than the floor of the house, spreading low-growing fern-leaved beech would, after twenty years' growth, have a pleasing effect when viewed from above.

*Woodland  
glades.*

In forming a new domain in wooded country, the effect of a series of grass avenues may often be obtained by careful and discriminate clearances such as those shown in illustrations Nos. 1, 170 and 171. The roots being stubbed the rough ground is carefully made up and either turfed or sown down, and hedges provided on either side, young trees being planted, so that very soon, new and old together form a pleasing vista.

*Pleached  
walks.*

Besides the avenues of full-grown forest trees, suitable only for use with imposing architecture, there are many other arrangements of greenery which partake of the same nature but which are useful where a large avenue would be out of place. The first of these is the pleached lime walk, of which examples may be found in many old gardens and which has always been a favourite device of the artist gardener both in this country and on the continent. It forms a useful and beautiful feature in the garden and may be said to bear the same relative scale to it that the avenue bears to the park. While the latter, however, is a symmetrical arrangement of trees which individually are allowed to grow naturally, the former is not only planted in a formal manner but is afterwards trained and trimmed to a symmetrical design and kept strictly in scale with its surroundings, as shown in the accompanying illustrations Nos. 371 and 372. Owing to the possibility of keeping the pleached trees clipped to a definite size, the alley may be adapted to almost any position or shape, and, indeed, may be used in almost any case where a pergola would be suitable but where its expense is considered prohibitive.

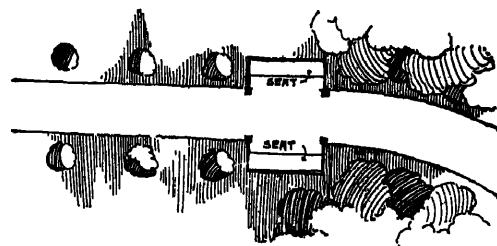


FIG 368

## THE FORMAL ARRANGEMENT OF TREES.

Another avenue-like arrangement which may be usefully employed in almost every garden is the grove of small trees. A very usual form, and one which has a very prim appearance suited to use in the formal garden, is that provided by a double row of mop-headed acacia, which are perfectly hardy in a great many parts of England, but seldom thrive in the northern counties or in Scotland. Many other trees may, of course, be used, and some of our most attractive flowering species are eminently suitable, such as the mountain Ash or Rowan, snowy Mespilus, Thorns, the Siberian and John Downie

*Groves of small trees.*

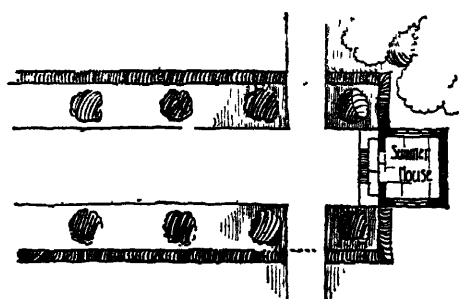


FIG 369.

Crabs, Almond, the double-flowering and common Cherry and *Prunus Pissardi*. Foliage trees, too, such as fern-leaved Beech are very useful, also cut-leaved Alder and several of the Maples; the two last, and the lime and Turkey Oak, can be trimmed to any size. For groves or alleys which are to be used in winter, tall pyramidal-headed Portugal Laurels, especially the small-leaved variety, sweet Bays, bay-leaved and golden queen Hollies on long

clean stems are suitable, and should be arranged to run outwards from the south front of the house, *i.e.*, running north and south so as to be sunny and sheltered from east winds. Such groves were often planted in old gardens and might be added to scores of existing ones.

It adds considerably to the effect of a grove if it can be made to terminate in some architectural feature, such as a sheltered seat or summer-house, or when the walk is to continue beyond the end of the colonnade, by an arrangement of seats under an arbour covered with climbers, as shown in illustration No. 368. It is, however, much better if a summer-house can be arranged to close the vista, and the connecting walks be made to join at right angles, as in illustration No. 369. The space between the rows of trees may be arranged as a grass walk or as a gravelled or flagged path with grass on either side (Ill No. 370), the former being the more artistic while the latter is more serviceable and easier to keep in order. A better but more expensive method is to have a paved walk, with the same arrangement of trees. In spacing out the trees, grass, hedges and walks, due regard should be paid to the character of the trees to be planted. Thus if Thorns or Crabs are to be used, the distance between the hedges should not be less than thirty feet, the width of the walk being not less than six feet. Grass looks extremely well at the sides if properly trimmed, but it should be kept clear of each hedge by at least nine inches, and a small circular soil bed should be formed round each tree. If, as the trees grow larger and produce more shade and drip, the grass becomes thin and impoverished, a kerb may be put at each side of the walk and the space previously occupied by grass be planted with St. John's wort, *Rhus Racemosa*, *Gaultheria shallon*, *G. procumbens*, vinca or common Irish ivy. St. John's wort and the various *Vincæ* of which the common periwinkle is one, are the most effective of these shade-loving plants.

Another formal arrangement similar to the last is the yew alley or bower walk, which should be found in every garden of moderate dimensions, whether formally or informally planned. Probably the best known of the old examples is the "Dark Arbour" at Melbourne Hall, Derbyshire; such scale and perfect arching is the result of years of careful clipping and training, but nevertheless a good effect can be obtained in reasonable time if a start is made with large plants under favourable conditions. These walks can often be arranged where a grove or ordinary pleached alley would not be successful. They give sufficient seclusion from without and yet keep open the garden vistas within, affording shade from burning sun or sufficient protection to give an impression of shelter when winds are boisterous.

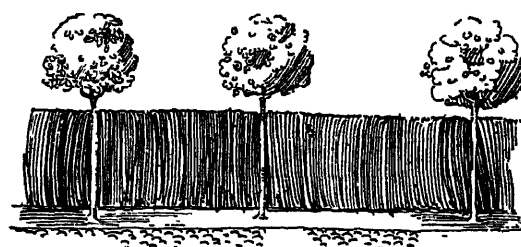


FIG 370.

*Bower walks.*

THE FORMAL ARRANGEMENT OF TREES.



FIG 371.—THE LIME WALK, TRINITY COLLEGE, OXFORD (WINTER)



FIG. 372 —THE LIME WALK, TRINITY COLLEGE, OXFORD (SUMMER)

## THE FORMAL ARRANGEMENT OF TREES.

Those who have studied the architectural drawings exhibited at the Royal Academy during recent years, must have been struck with the number of designs in which trimmed hedges form part of the scheme, some being largely dependent on the hedges for their interest. Their definite lines and the accompanying walks assist the architectural composition and furnish an extended base to the main building, they impart an idea of shelter in most weathers and suggest screens for half-hardy flowers. Furthermore they emphasize the varying hues, and form haphazard picturesque groupings of foliage and give the necessary contrast, binding the whole together with strong sweeping lines.

*Formal  
hedges.*

In modern gardens, hedges are seldom recognized as artistic factors. Occasionally, a trim, compact hedge is met with, dividing the kitchen garden from the pleasure grounds, or as a screen to back premises, but both its planning and treatment, or rather lack of distinctive treatment, make it obvious that it is merely considered as the lesser of two evils—a brick wall or a hedge—and that the owner, being unable to bear either the idea or the cost of the former, has adopted the latter—an attitude disastrous to garden design.

In contrast to the purely utilitarian treatment of these æsthetic factors, compare the wonderful hedges at Holm Lacy, and the green fences and green arches at Broom Hall, Norfolk, the latter suggests arrangements where an ordinary hedge would be too confining.

The simplest forms of clipped hedge are most satisfactory, because they express their purpose without pretence and are easier to keep in shape than those requiring great skill in clipping, but as simplicity may be expressed in many ways, there is no reason why there should be any lack of variety. Even a hedge bounded entirely by straight lines may be diversified in many ways, by the ordinary square crenellations or by pilaster projections arranged at intervals of about twenty feet, or to mark the sides of an opening made to admit a pathway. There is also the usual form of straight "jump" made to meet the fall of the ground; and also a curved rise in hedges against buildings similar to half of arch in second sketch page 276. To these may be added shapes which are not so simple, as the raised semicircular "rounds," shown in illustration No. 385, or the inverse, namely a series of semicircular hollows in the top of the hedge, with short level portions left between. Although difficult to trim correctly, they are most effective where an expanse of interesting scenery is framed by the openings. Either of these useful shapes may be further elaborated, should the surroundings call for it, by the addition of pilasters between each two rounds; or these again may be surmounted by heads clipped to a ball shape or half ball, with or without whorls below, or to the shape of sugar-loaf finials. Other interesting shapes are shewn in illustrations Nos. 381 and 385.

*Design of  
clipped  
hedges.*

Most of these arrangements demand that the hedge shall be trimmed perfectly square in section, i.e., with vertical sides and a flat top; but this is not always the best section for ensuring a strong hardy growth. The nurseryman and forester, on the one hand, and the architect on the other have differing views on this matter. The former keep their hedges wide at the bottom and narrow at the top, as shown in section illustration No. 374, because hedges so trimmed make strong lower branches, and a dense close bottom. Architects however, from artistic motives, generally prefer hedges trimmed square on the top (Ill. No. 375), and the gardener often enlarges upon this by allowing the top to over-hang, as in illustration No. 376, with the result that the hedge gets poor and open at the bottom. The pointed section preferred by foresters (Ill. No. 377) does not look so prim as the square shape, but for practical reasons is undoubtedly the best. By a little care, however, the advantages of the one shape may be combined with the primness of the other, by keeping the hedge pointed while young, and when a good strong bottom has matured, gradually allowing the top to grow outwards until it can be trimmed square.

# EXAMPLES *of* TOPIARY

*Shapes adapted to any height*

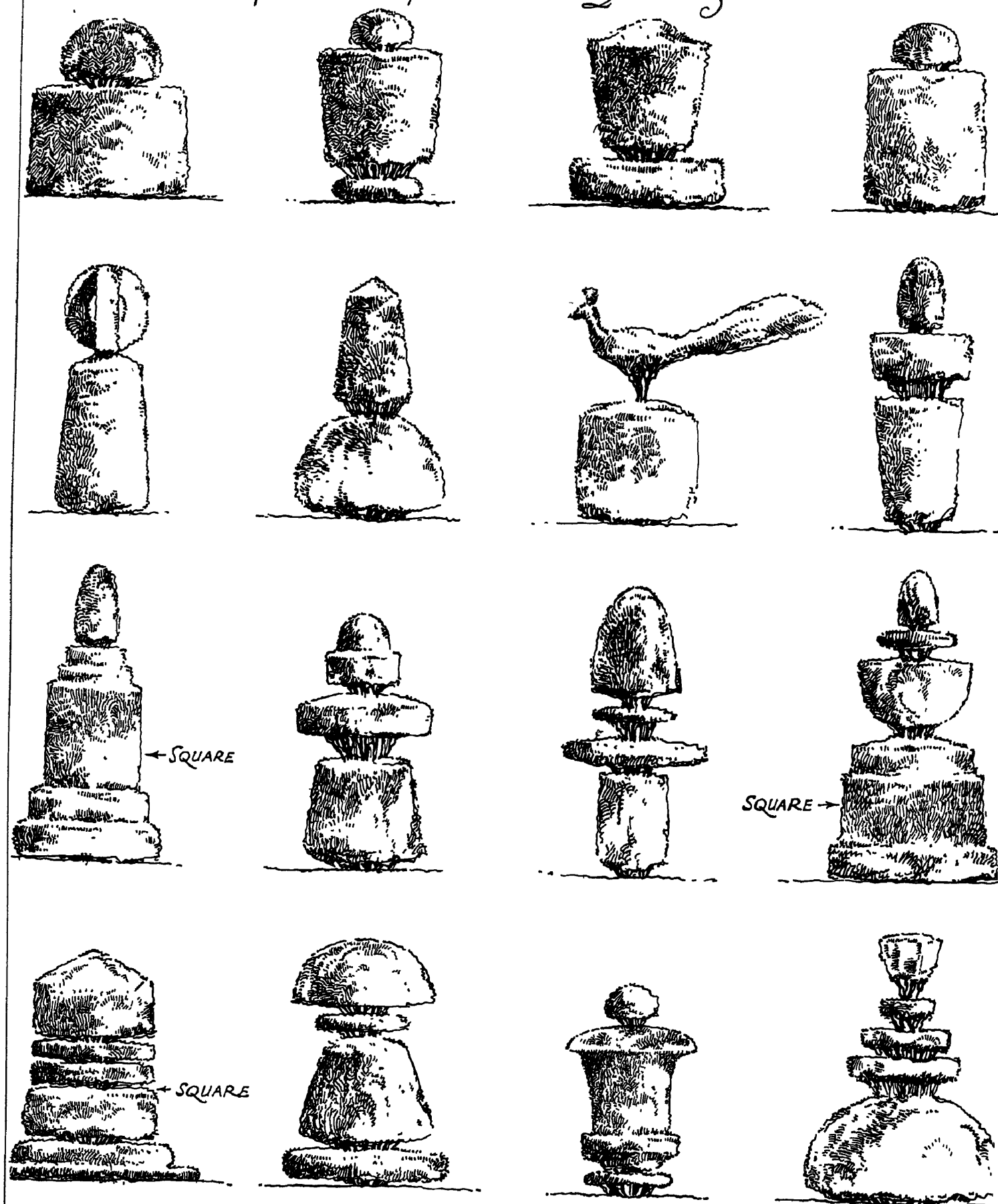
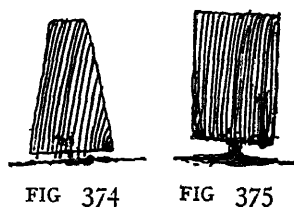


FIG. 373.

## THE FORMAL ARRANGEMENT OF TREES.

Many gardeners who, in most things connected with their craft, are excellent men, have an unwarrantable dislike to hedges, which they allege rob the soil of nutriment and harbour garden pests, making successful flower growing impossible, or at the best, disappointing. While it is true that trees and shrubs harbour pests, the idea that they make flower gardening impossible or even difficult is erroneous. A bed of lettuces in the middle of a fifty acre field, altogether removed from hedges, would receive greater attention from these pests than a whole flower garden with hedges and box edging covering half the ground. Granted, however, that

*Objections to hedges considered.*



there is some truth in the gardeners' contention, and add to it the further objection that the roots of the hedges absorb the nutriment from the soil, the shelter which they give to the plants is an excellent com-

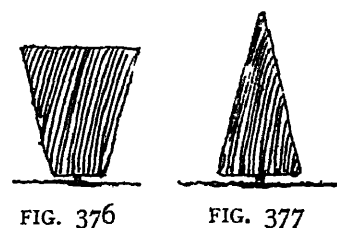


FIG 374 FIG 375 FIG. 376 FIG. 377  
pensation for these drawbacks. When the necessary outlay can be afforded, the impoverishment of the borders can be prevented by building a wall some three feet deep into the ground between the hedge and the border, its top being level with the ground, as shown in the first sketch (Ill. No. 378). Where this plan is too costly, it is advisable to have a grass walk, as broad as possible, between the hedge and border, as shown in the second sketch (Ill. No. 379).

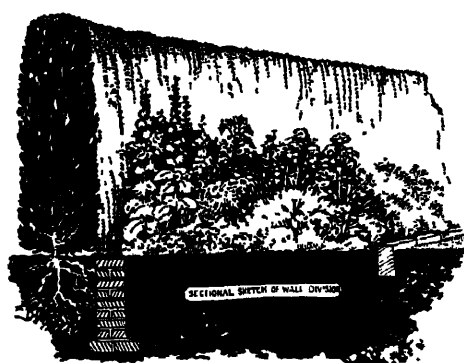


FIG 378

The number of different trees and shrubs available for the formation of clipped hedges is large enough to meet all tastes and cultural possibilities. Under normal conditions there is no doubt whatever of the pre-eminence of yew for this purpose. Not only has it the advantage of possessing the sentiment inevitably associated with the trim hedges of the old

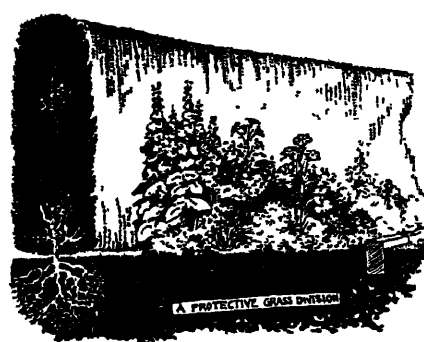


FIG. 379.

*Materials available for hedges*

fashioned gardens, but there is something in its habit which gives it the quiet home-like appearance so obvious in the accompanying photographs of the gardens at Levens Hall (Ill. Nos. 2, 381 and 382) and unattainable in other materials. Its colour and texture make it an ideal background whereon to display the old fashioned perennials, with their brilliant hues and bold foliage.

Where Yew is not used, the best and most permanent evergreen hedges are formed by Holly, tree Box, small-leaved Portugal Laurel, Cotoneaster Simonsii, C. buxaefolia, Ligustrum ovalifolium, (oval-leaved privet) or sweet Briar. In the south counties, especially near the coast, Cupressus Macrocarpa is excellent. Privet is practically evergreen; in fact, entirely so in mild winters when the old leaves remain until the new ones push forth. Sweet Briar is really deciduous, but as the stems are bright green, it may almost be considered as an evergreen. Euonymus Japonica makes an excellent protective hedge where strong sea breezes are prevalent, but requires the protection of wattled hurdles until it is established. There are also numerous varieties of Arborvitæ, Cupressus, Retinosporæ and Junipers, nearly all of which stand trimming, while the several varieties of Laurus, Cerasus Laurocerasus, and C. rotundifolia are useful. Even Spruce Fir, when grown under favourable conditions,

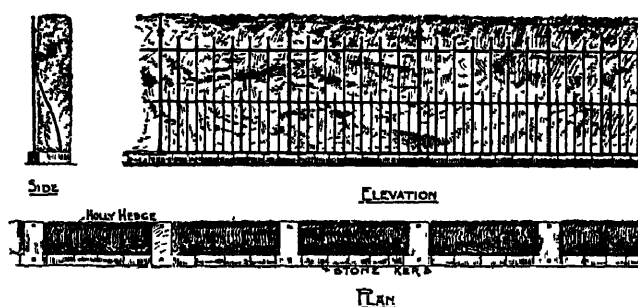


FIG 380.

THE FORMAL ARRANGEMENT OF TREES.



FIG. 381.—MY LADIES' GARDEN, LEVENS HALL

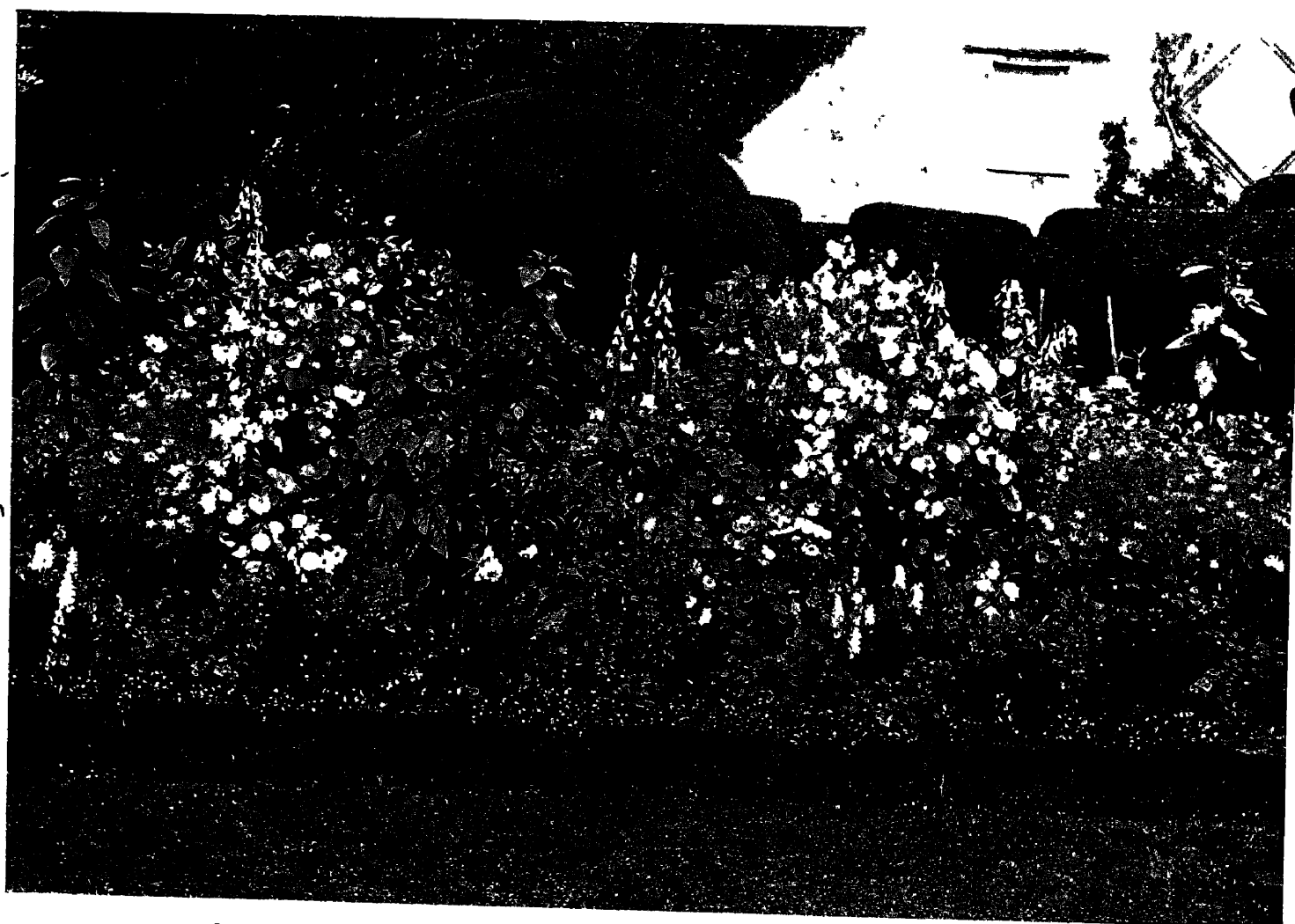


FIG. 382 —HERBACEOUS BORDER IN MY LADIES' GARDEN, LEVENS HALL.



form excellent hedges. In some parts of Scotland, particularly in Aberdeenshire, the Scotch Fir is largely used for the hedges of bleak fields; the proof that they will stand trimming is demonstrated in the forests along the Dee-side where thousands may be seen trimmed into dwarf symmetrical bushes by the deer.

The best materials for deciduous hedges are undoubtedly Beech, Hornbeam, Thorn and myrobella Plum. Of these the most suitable are Beech and Hornbeam.

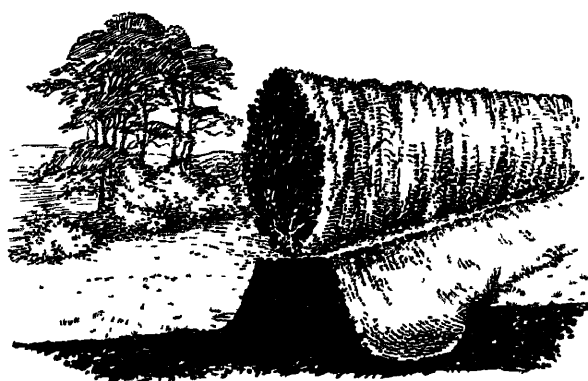


FIG. 383.

A very economical and effective fence between small gardens and the highway may be made by planting a prim hedge, say of privet, behind plain railings, and trimming the hedge a few inches above the railings. In this way effective use may even be made of that otherwise unæsthetic material known as unclimbable iron fencing, as shown in the sketch (Ill. No. 380)

Most of the hedging plants named above may be obtained from nurserymen in almost any size, and in some cases he will sell the half-matured hedges dividing his nursery quarters.

When an already well-grown hedge is to be transplanted, it should be prepared for lifting at least six months before it is required. The best plan is to purchase in the early spring and prepare the plants by close root pruning and remove them in the autumn. Where there is no hurry, it is better to start with small plants, as they make more perfect hedges than larger transplantations, which are liable to lose their lower branches.

For formal pleasaunces or the more decoratively treated portions of the gardens, there are very few positions where a hedge composed of more than one variety of tree is successful, unless it be a privet hedge mixed with thorn planted between the garden and home park. In the home park or even in the wild garden, delightful effects may be obtained by mixing two different species. Thus, Privet and Thorn; Privet and Hornbeam, Holly and Hornbeam; Hornbeam and Thorn, are all suitable mixtures. Beech and Holly together make one of the most delightful combinations possible in the winter months, for the Beech, when clipped, retains its "fox red" leaves until the spring, being a perfect contrast to the dark rich green of the holly, and providing a feast of colour at a time when the landscape is generally drab.

*Hedges of more than one species of tree.*

To form the ordinary white thorn or quick hedges, the plants should be bought when a foot or fifteen inches high, and placed in double rows about nine inches apart, any time from November to March. The following April they should be cut down to three inches above the ground, then as the growth permits, trimmed to the desired shape, afterwards clipped annually. It cannot be too strenuously insisted upon that the ground must be trenched and cleaned before planting, and nettles, noxious weeds and long grass must be systematically kept under as they shut out light and air from the stems, and harbour pests.

*Planting thorn hedges.*

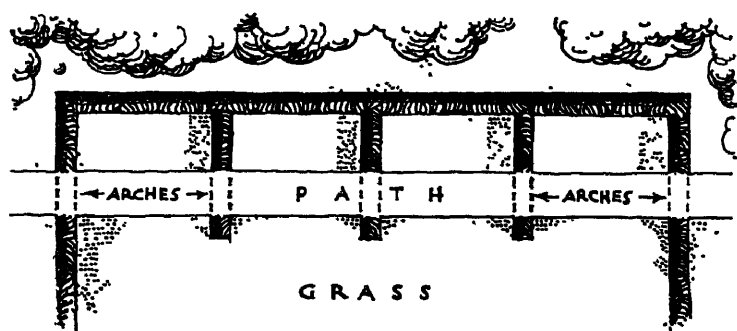


FIG. 384

The accompanying sketch (Ill. No. 383), shows such a hedge on a cop of earth with the usual ditch at one side. Whether a raised cop is possible or not, some sort of a temporary fence should be provided to prevent the young hedge from being damaged by cattle, and in very exposed positions wattle hurdles will be best, as they will provide shelter from keen winds for the young and tender plants.



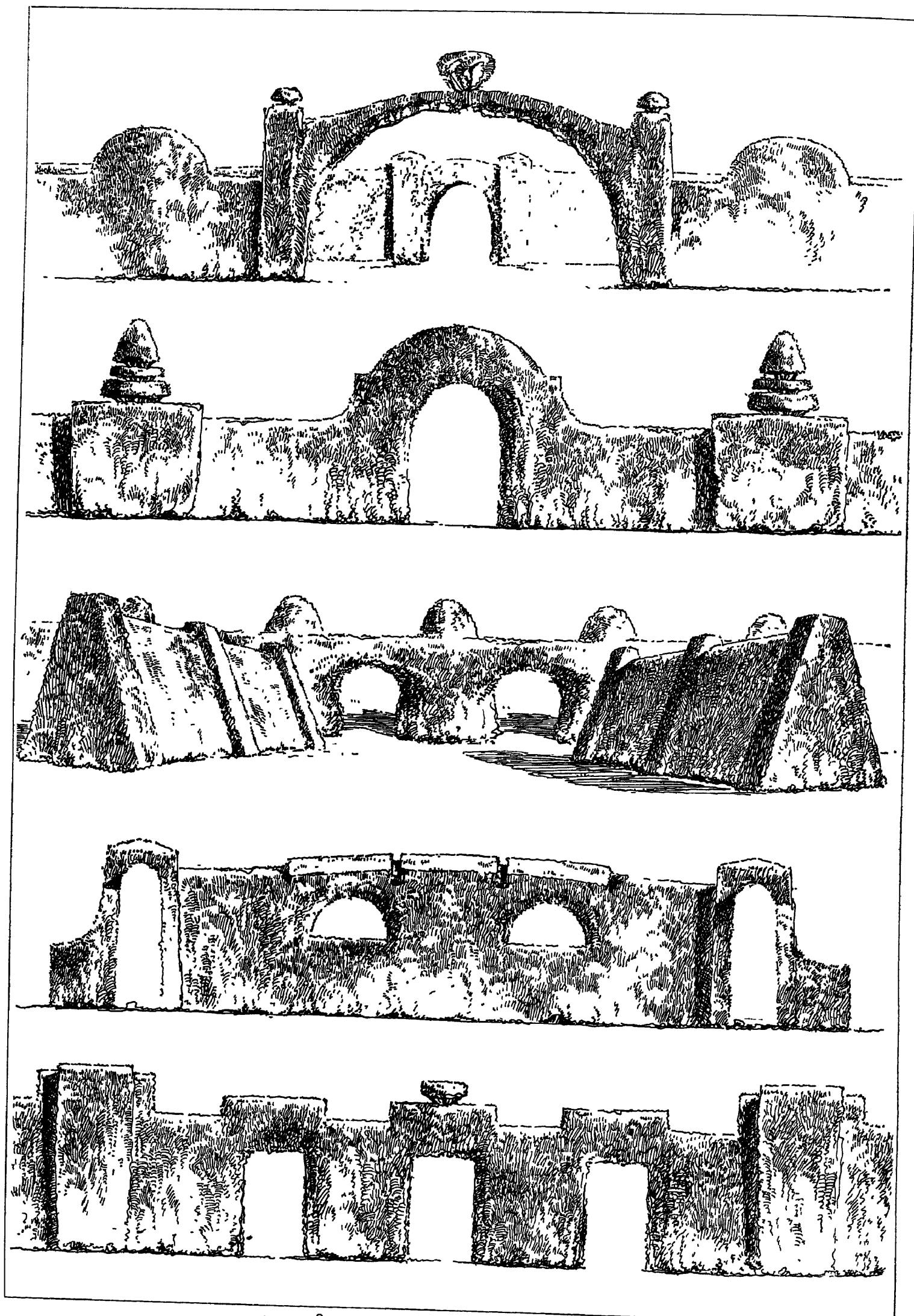


FIG. 385.—DESIGNS FOR CLIPPED HEDGES.

## THE FORMAL ARRANGEMENT OF TREES.

A series of arches at regular intervals alongside a clipped hedge, make a pleasing alternation to its austerity as illustration No 384. The effect of such an arrangement of hedges and arches may be seen at Alton Towers, Staffordshire, or where a single or double continuous arcade of clipped arches runs alongside or on either side of a walk, making a many arched bridge of greenery such as that at Broom Hall already referred to, or, more beautiful still, because more quaint, the similar arrangement at Cleeve Prior. The shadow effects thrown on the surrounding ground are fine, but the shelter, which is the chief use of a hedge, is wholly or partially destroyed. Unless further provision is made to prevent it, draughts sweep under these arches and make it difficult to grow flowers successfully in their immediate vicinity. To attain any measure of success in growing and trimming compact arches means time and care, and probably the aid of a wood or iron framework will be necessary to train the wayward branches.

*Treatment of openings in hedges.*

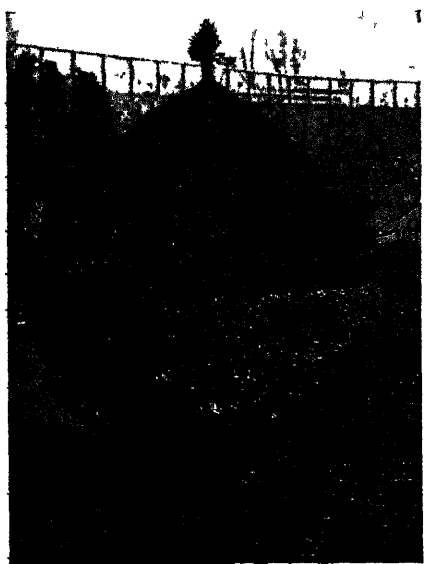


FIG. 386.

Typical examples of suitable topiary may be instanced by the usual use of a yew arch over a white painted gate to a cottage garden, the whole surmounted by a pair of clipped doves, emblematic of domestic felicity; or the perpetual reminder shown in illustration No. 387, which the writer came across in another cottage garden.

Simple forms are always best, the raised ridges shown in illustration No. 386 would prove much more effective than the elaborate cones, obelisks, columns, spheres, spirals, domes, bottles and corkscrews, canisters, and so forth, of which we have too great a profusion. The shapes adopted should be complementary to the existing lines. Where, as at Blickling, there is an abundance of erect-growing conifers, and upright lines predominate, perfectly flat-topped beds of yew are in keeping, but where, on the contrary, there are a number of horizontal lines and flat surfaces, as at Montacute, the long lines of obelisk-shaped yews are equally effective. The requirements in every case cannot be so easily gauged or dogmatically determined as in these instances, nor is this desirable, or monotony would result. There is ample scope for the exercise of ingenuity in this direction which leaves no excuse for the wearisome repetition of old shapes. If the surroundings fail to suggest new and simple forms, shrubs which have naturally a decided formal shape will perhaps fulfil all requirements.



FIG. 387.

There are many trees which will stand clipping to artificial shapes, but Box and Yew stand unequalled for the purpose, and nearly all the clipped shrubs in this country are either in one or the other of these, or in Holly or Beech. Box is best where dwarf

*Topiary.*

*Trees for clipping.*

## THE FORMAL ARRANGEMENT OF TREES.

clipped shrubs are required, while taller pyramids and cones are better in Yew or Holly. The numerous small leaves and branches of box so compactly placed allow of its being trimmed to almost any shape, which it will retain long after clipping, and it has also the advantages of being one of the longest lived shrubs we possess, thriving in most soils and atmospheres. In addition to the common kind, there is the Handsworth Box, an effective variety with a beautiful blue-green sheen, and also the golden Box, which introduces a distinctive colour note.

The best variety of Yew is undoubtedly the common one, *Taxus baccata*, but there are others almost equally serviceable for clipping. *Taxus elegantissima aurea* can be obtained trimmed into many shapes, such as obelisks, mole hills, cubes and pyramids. Standards may also be obtained consisting of mushroom-shaped heads of this tree grafted on to Irish Yew, the heads, with their bright golden colour, contrasting admirably with the dark green of the Irish Yew below (Ill. No 388). Another variety deserving of more attention than is usually bestowed upon it is the *Taxus adpressa stricta*, which is somewhat darker than the common variety and more compact in habit. It makes a beautiful pyramid and requires little attention.

Of Hollies, the common variety is the best, and for trimming to some shapes is the only one possible. The golden queen, *Ilex aquifolium albo-marginatum*, *I. minorca* and several others, make capital pyramids. Waterer's golden holly, is a slow-growing and compact, but most useful variety.

Those who have seen the terrace gardens at Trentham, remember the effective standard Portugal Laurels in tubs the main walks; in such a form to advantage. The small-leaved is excellent for clipping, either as a continent Sweet Bays take the plants. They may be seen to perfection in Brussels, notably at the Tuileries.

For clipping, no deciduous tree fern-leaved beech, which stands light pea green of the foliage in spring is delightful, and in the summer, when it has assumed more sober hues, there is much to admire in the narrow serrated leaves and its peculiarly neat habit. White or pink thorns, will also stand clipping, yet are inferior in effect to the fern-leaved beech.

Clipped trees are not invariably essential to a formal scheme, for there are conifers and shrubs which have naturally a decidedly symmetrical outline. The best is unquestionably the Irish yew, which together with the golden variety, *Taxus hibernica aurea*, suits most positions and requirements. They form excellent supports to steps, or to flank the doorway to a porch or garden house, and are also useful when planted at intervals in front of a long bare wall, to break up its surface, flourishing in most soils, positions and atmospheres. Another elegant fastigate-shaped conifer, *Cupressus Frazeri*, distinguished by its neat habit and beautiful glaucous foliage, may, in districts favourable to conifers, or on light sandy soils, be even more effective than the Irish Yew. *C. erecta viridis* is very good when in a young state but usually needs occasional renewal, as it gets very bare in its lower branches. *Juniperus hibernica* and *J. chinensis* are also both very effective conifers of upright growth and good colour. With a little knifing, the following may also be kept in good shape, viz —*Cupressus Lawsoniana*, *C. lutea* and *C. argentea*, *Retinospora squarrosa*, *R. plumosa* and *R. plumosa aurea*, which are all more or less upright in growth. Among the dwarf varieties may be mentioned *Cupressus Lawsoniana nana*, *Chamaecyparis ericoides*, *C. lutea nana*, *C. leptoclada*, *C. filicoides* and *C. Lycopoides*. *Biota elegans* is a charming dwarf-growing conifer with

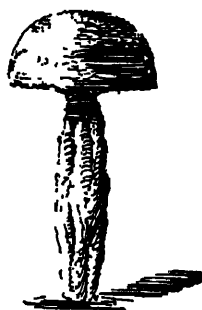


FIG 388.

arranged at regular intervals along this hardy shrub always appears variety, *Cerasus lusitanica myrtifolia* standard or in hedges. On the place of Portugal Laurels as tub section in the gardens of Paris gardens.

is so effective as the little known severe cutting and trimming. The

*Trees of  
naturally  
formal  
habit*

## THE FORMAL ARRANGEMENT OF TREES.

a pleasing bronze shade of colour *Cupressus macrocarpa* and its golden variety, are two of the best conifers for the formal garden, and are especially useful near the seaside. They are of rapid growth, and although not neat in habit when allowed to grow naturally, may be trimmed to a pyramidal form round or square in section, and specimens ten or twelve feet in height may be grown in four years. Sweet bays, which may be obtained either as pyramids or mop-headed, also harmonize well with a formal treatment, as do mop-headed *Acacias*



FIG. 389.—CLIPPED YEWS AT BRADFIELD, DEVON.

Few deciduous shrubs having variegated foliage equal *Cornus elegantissima* in colour. It is much superior in both habit and hardiness to the *Acer japonica variegata*, and, whether used as a bush among conifers, as a standard at intervals along the sides of a walk, or as a pyramid in the formal garden, is to be commended. Certain Japanese *Acers* make charming standards, but unfortunately succeed only in very mild and sheltered localities. Where, however, gardens are favourably situated, and the soil is light and sandy, nothing could be more charming; they resent clipping, but may be kept shapely by trimming straggling branches. Brooms are among the hardiest varieties of flowering shrubs sufficiently neat in habit to warrant their inclusion in the formal garden, and some of them, when grafted on the common laburnum, make excellent standards. The best varieties are *Genista pallida*, *G. p. præcox*, and *G. alba*. The golden or white balls of colour which these plants produce in spring, and the fragrance of their blossoms are sufficient in themselves to make any garden attractive for the time being.

Dwarf topiary work usually seen in knots and garden parterres stands in a class by itself, and is quite distinct from the ordinary topiary, though it often accompanies it. It consists of patterns, generally repeating scrolls worked out in lines of dwarf box, trimmed very close on a background of gravel. While there are examples which

*Dwarf  
topiary*

## THE FORMAL ARRANGEMENT OF TREES

show that this class of gardening is capable of great development, its usual application is the formation of a garden in a position which is too cold, damp and over-shadowed for successful flower growing. Under such circumstances it is not surprising that the vision called up to the mind by the dwarf topiary garden is a somewhat depressing place, shut in on all sides, and where even the hardy dwarf box shows evident traces of a hard struggle for existence. If, on the other hand, dwarf topiary work is used for decoration of the most formal terrace of all, between the architecture and the first flower garden, it may be most effective, but even here it must be carried out on a somewhat large scale or it is apt to look a little out of place. It is essentially a feature suited to large gardens.

*Filbert  
walks.*

Before closing the subject of formal trees, the old-fashioned filbert walks must be mentioned. These are very pleasing features with their fresh green foliage and cool shade. They were welcome inclusions in the old gardens and were usually planted on the outer fringe of the more formal portion, where they helped artistically to merge the trim garden into the landscape beyond. Of late years, filberts have been neglected, but results such as those read of in old gardening books may of course, still be secured. Growers of cob and filbert nuts are agreed that much better results can be obtained by trimming or pruning the branches than by shearing or pleaching, while the effect is equally good, if care be exercised in the knifing. By knifing is meant the trimming of branches separately by secateurs or garden knife as opposed to shearing or clipping. Cob and filbert nuts look most effective when planted two feet apart in the rows, but the heaviest crops are secured by planting about five feet apart.



FIG. 390.

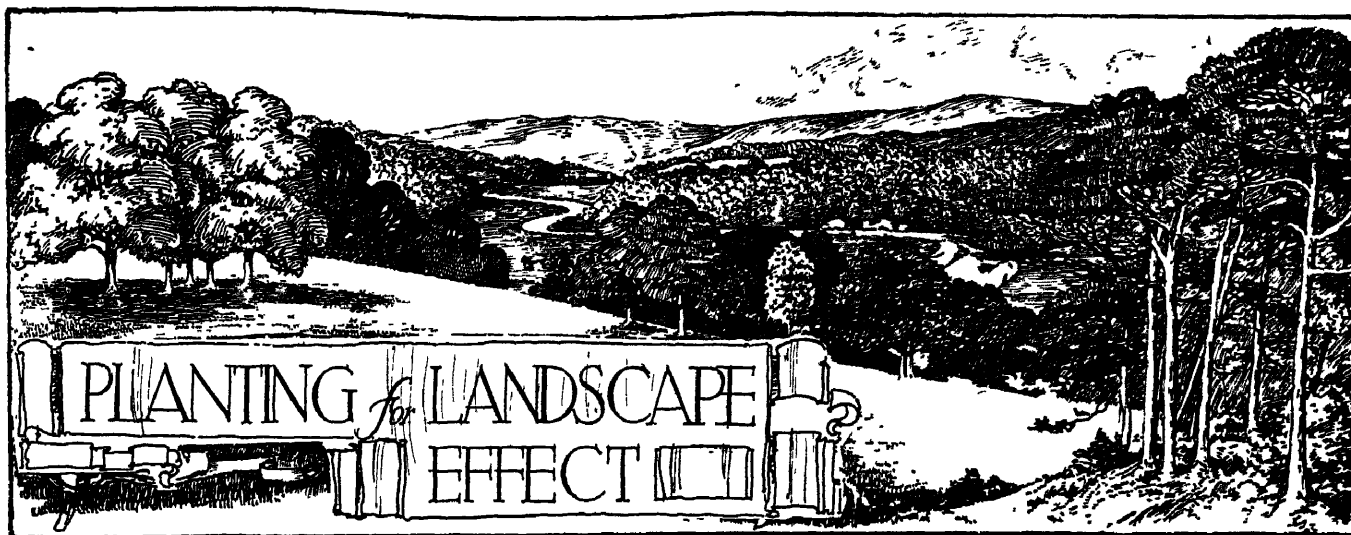




FIG 391 —PLANTING AT LEWISTON MANOR, DORCHESTER



FIG. 392 —PLANTING BY THE LAKE, "WOOD," DEVONSHIRE.



## CHAPTER XVII.

Of all gardening enthusiasts the planter is the person who has chosen the better part. This person conjures before him the picturesque, the stately and the grand, and also the simple homely effects which diversify our gardens and solace the quiet mind. Utility, ornament, the primitive and the natural groupings, the specialities such as game coverts, roadside planting, seaside planting, all come within his province without jar or discord. He has a never ending fund of interest which continues uninterrupted from childhood to old age.

At the outset, even though it be a digression, let me state two very important truths which taken together really constitute one. The first is this—all the science in the world will profit a landscape gardener little if his sense of observation has not been developed by continuous study of beauty in nature and in art. Landscape architecture is not the importation of nature into the garden, it is an art, just as in the case of a painter or a sculptor. Most artists of these and every other kind, are born with instinctive gifts, but they are not born ready made artists, nor are they such by technique or scientific acquirements alone. On the other hand, and this is the second truth, all the artistic instinct, all the artistic training in the world, will not make a man a good landscape architect unless he has an all-round scientific acquaintance and practical experience with plants.

*The Landscape Architect's qualifications.*

Owing to the economic changes brought about by the war, we are having to go back to the simplest and the healthiest of all pleasures in the range of gardenage, namely the grouping and cultivation of our native and acclimatized trees and shrubs together with flowers, which is the purest form of delight. It is the primitive instinct of Eden, wherein were all manner of trees which were good for food and pleasant to the eye. It is the taste of the outdoor people, and in the case of the upgrown trees it is economic. Moreover it is that which makes for health, and entails no great burden upon posterity, and, considered from the standpoint of the amount of pleasure yielded, the least costly.

*Planting means simplicity.*

Someone made a computation of the number of men per acre needed to maintain the different departments of an up-to-date garden. The glass houses were the highest pro rata; next came the rock gardens, the herbaceous borders and the bedding along with the mowing of the lawns, then the kitchen garden, which of course must in fairness have a measure of food supplies to its credit, and lastly came the shrubberies and plantations.

This does not by any means suggest that the "policies" as they are called in Scotland be neglected and allowed to become the dark and sunless jungles too frequently seen, nor the oftentimes featureless jumble of trees and shrubs known as a shrubbery. If



## PLANTING FOR LANDSCAPE EFFECT.

ground is properly prepared before the trees and shrubs are planted, there is very little trouble and expense beyond mulching and pruning needed, because plantations of standard timber trees and also of shrubs, will brook very little interference when once planted, beyond cutting out of nursers which are purposely included for shelter only, and are not intended to remain. Properly spaced groupings of timber trees that are much disturbed or thinned, or too severely pruned of their lateral branches, and plantings of shrubs that are shuffled about after they are established, always carry an indeterminate hesitating look which is manifest to the person of trained eye.

*The breadth  
of early  
English  
Planters  
commended.*



FIG. 393.—POPLARS IN THEIR NATIVE ENVIRONMENT.

received no small inspiration from them. They knew how to group noble trees (which we behold in maturity) on commanding knolls, leaving glades shewing the glint and sparkle of a river or stream, and vistas to shew off the billowy contours of park land

Contrasting the methods of modern horticulturalists with theirs, the present aim is to import as much variety and as many conifers, new shrubs, and include as many hybrids and novelties, as possible. Still they come with awards and medals attached, but those who design are bewildered by their multiplicity and are often at a loss in what association to place them. When the early designers had less than a hundredth part of the variety we have, they succeeded admirably with native deciduous trees and such evergreens as the noble cedar of Lebanon, Irish and Common Yew, Ilex, Juniper, Holly and Box, in the precincts of the mansion and the intermixture of Portugal Laurel in the policies. The charm of their noble simplicity may be seen in mansions of their period, such mansions as Moor Park, Herefordshire, and many others which could be named. The same simplicity is to be found in the *parcs* of France designed about the same period, those stately grounds surrounding the mansions of the nobles who were the retainers of Louis XIV and Louis XV, and also in the celebrated renaissance gardens of Italy.

*Their  
homogene-  
ous ideals.*

Whatever may be said against them, they seem to have had the larger and broader outlook upon scenery, and they had imagination also and courage. They succeeded in making the country a scenic whole, each garden and park being one of a connected

in the main exemplary although it was due to the adoption of their maxims that many of the quaint formal gardens were destroyed. Their groves of one kind of native tree, clumps and bosques (and many of them planted also avenues) diversify and adorn whole tracts of our home landscapes, and are to be seen in the Georgian parks and the spacious gardens of their period. They left a legacy to posterity, which in large measure remains, although sadly yet needfully depleted during the war, and garden design in general has

series, instead of being, as many of our gardens are, notes apart, if not actually discordant, although individually striking. When prospects are thus regarded as scenery, it opens out a wealth of emotion and implied ideas in conjunction, which means the sinking of individual preferences in order to keep its indigenous characteristics intact. They pushed their scenic attempts beyond assigned limits in the formation of land contours, swells and knolls, although Repton in his book, by the aid of his convincing sketches and descriptions, makes good here.

Modern planting lacks the majestic tone and breadth with which their work was imbued. For the most part it is of the pretty tea-garden type. Even modern landscape painting fails here, we are given fragments and snatches of pretty bits, which are often rendered with consummate technique, instead of broad balanced compositions. On the one hand we are too scientific, and on the other hand we lack the



FIG. 394.—POPLARS IN UNCONGENIAL SURROUNDINGS.

power to see nature broadly, thus we fail to respond to the deepest sentiments which she inspires.

The pleasures obtainable from planting are manifold. Broadly they may be divided generally into two kinds. First the general pleasure derived from the mass, and secondly the pleasure derivable from detail. There are certain trees which we look upon as those in general, and there are certain others which we look upon as selective, these are the aristocrats, which must of necessity on all occasions wear a dressed appearance. These latter are they which are placed in conspicuous positions singly or in groups to the front of the lawn plantations.

*Planting in mass and in detail.*

In the wild wood the sentiment proceeds from the appreciation of nature's freedom and prodigality. Here a thicket of thorn and briar, there the upgrown woodbine's disarranged tresses almost hiding the hazel, at another the struggle for mastery between young forest aspirants, the royal oak and the noble beech in all their stateliness occupying broad acres wrested from the conquered; forms of strength and beauty adding picturesqueness as age advances, from their gnarled and contorted trunks flinging out bare arms as in a fantasy, vivid amidst the ghostly green gloom. Such scenes are inimitable as well as indescribable; at best we can only set forth after most patient effort, but a fraction of the joys that therein compacted lie. Nature is so jealous of her secrets, only disclosing them little by little. Added to these pleasures in detail are the grander effects from without seen in the combination of woods and forests dispersed abroad upon the panoramic landscape, all alike independent of human marshalling, yet with such magnificence and felicitous array as from each moving standpoint we admire the many aspects of the bold, mighty, consummate design, and the superb blend with the pastoral, plain or surrounding mountain.

*Nature's freedom.*

The novice and the uninitiated, without ability to enquire into the causes that go to make the natural so pleasing, essay to do what the ablest practitioner ever finds so

## PLANTING FOR LANDSCAPE EFFECT.

difficult. The gardener likewise fails here from lack of breadth; his eye being too well trained to the finer delicate beauties of flowers and fruit. Those who have tried to approach the freedom of nature, know that it is well nigh impossible to deceive a practised eye; try as we will our happiest hits have always more or less the appearance of artificiality.

*Nature's  
methods  
surpass  
imitation.*

In the limited range of one short chapter it would be impossible to trace to their sources the pleasures derived from woodland scenery and plantations, nor can the designer gain much help on this subject from books. Nor is it to be wished; the infinity of curve in tree forms, the silent complexity of their myriad parts, their natural architecture which suggests no plan, alike baffle and defy description and dissection. It is one instance amongst many where the faculty of keen observation transcends learning. A man may have the most perfect knowledge of trees the world over, and yet be devoid of the artistic qualities needed to plant suitably.



FIG. 395 —GROUP OF ELMS ON A LONDON COMMON.

*Three basic  
planting  
principles*

Let it suffice to state the three leading principles to which all others are tributary. First—*Unity in composition*—to dispose all the trees, single, groves and clumps, to fill a place in one complete, unified scheme, and even to incorporate therein other pleasing foliage effects beyond. Secondly—*A happy balance of parts*. In an ideal landscape, although perhaps not apparent, there exists a balance of parts which is the counterpart of order; this principle of balance underlies every successful work of art, and whether it be a building, picture, statue or photograph, each must have it. Thirdly—*Arrange the foliage in masses of one species of tree by themselves*, and whatever varieties of flowering or evergreen trees or shrubs are introduced, the predominant keynote must be in accord with the prevalent trees of the district; for every kind of tree has its own locality and habitat.

*Different  
trees  
considered  
for effect.*

There are several kinds of trees of distinctive habit which are not adapted for massing by themselves. The Lombardy poplar is happy individually, or better still, in threes or fives or sevens, overtopping with spiry effect a mass of low growing

## PLANTING FOR LANDSCAPE EFFECT.

foliage, but when introduced as No. 394 : making a level line across the landscape, they are disastrous. The Scotch Fir, so effective by itself singly or in groups or overtopping other foliage, is disappointing as an avenue or as a level line across the landscape. Trees such as Spruce Fir, that have a tendency to lose their lower branches, do not look well in groups, although this is not the case with the Scotch Fir. What is undesirable on the outside of a wood or plantation may be desirable within, the tall clean trunks of trees, which look gaunt without, make the columns and aisles within. Trees that are tenacious of their lower limbs are specially pleasing, such as the Cedar of Lebanon and the Yew, also the Oak, Horse Chestnut, the Spanish Chestnut, and the usually clean grey boles of the Beech (provided they are not minus branches to any great height),



FIG. 396.—GROUP OF LONDON PLANE IN HYDE PARK.

are a pleasing feature in any landscape. The Ash and Sycamore make effective groupings. The Ash is also specially commendable as a single tree for its picturesque stateliness, as several landscapes by Constable testify. There is also a golden Ash which is unique. The Oak and Beech are adapted for forests. Ruskin says that "a forest composed of all manner of trees is poor if not disagreeable in effect, composed of one kind of tree it is sublime." As examples of an extended range of one kind of tree see Illus No. 399, which is composed entirely of Oak.

Beech will bear shade, Birch will not. This quality in trees has an important bearing in the planting of forests and trees generally.

The amount of rainfall and the nature of the soil usually determines the kind of tree. Ash and Sycamore prefer good soil, but Scotch Firs, Oak and Beech, are less exacting. Birch is the one deciduous tree that takes possession of absolutely barren soil. The Midland Afforestation Society which plants cinder heaps and pit mounds in the Black Country have demonstrated how trees make headway against seemingly hopeless conditions. Sycamore and Chestnut are deep rooters and dislike stiff clay and cold subsoils, but the Elm which is a surface rooter, thrives amazingly in the stiff London and other clays.

*Trees  
considered  
culturally.*

## PLANTING FOR LANDSCAPE EFFECT.

Because one species of a tree, say the Wych Elm, succeeds in a certain district, it is no guarantee that the common Elm or the Huntingdon Elm will do so also. It is most likely that one and all will, but by no means certain. Perusing an account of a gardener's extended trials of what will grow on chalk, it was surprising to read that *Rhododendrons rubiginosum* flourishes in chalk, which is potential lime—the deadly aversion of all the rhododendron tribe,—and that *Eucryphia cordifolia* makes a fine plant, whereas its cousin *E. pinnatifolia* absolutely refuses the chalk. One has always to be prepared for such surprises in planting, if so, the mind is ever open to note and store lessons innumerable

It is of all importance that we pay attention to the skyline in all plantations. No amount of interest in detail will atone for this defect

No all round rules can be laid down for any locality, situation, or for any kind of soil. A person asks abstractedly what shrubs will thrive in a certain coast locality, but no one can decide without personal acquaintance with the district, the site, the soil and the rock which abounds, and the prevalent winds. The soil and the winds

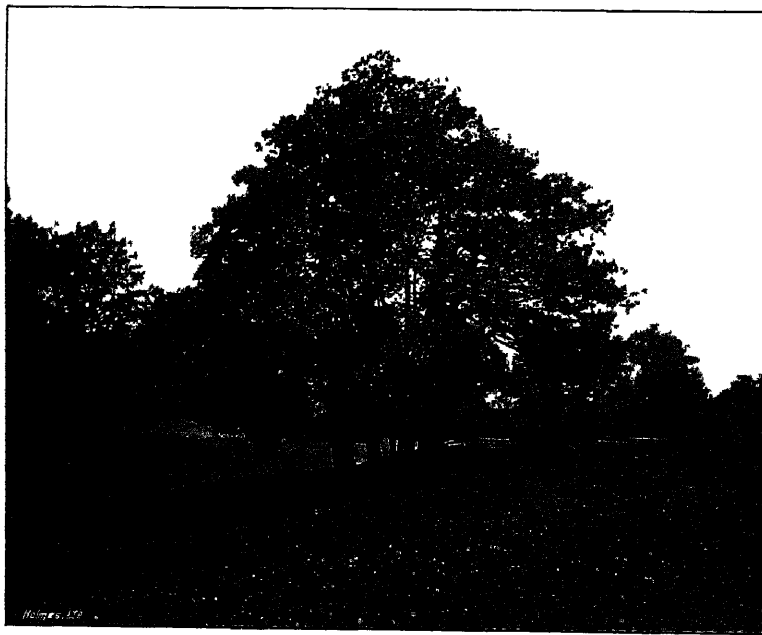


FIG 397 —GROUP OF YOUNG OAKS

vary considerably in a hundred yards of coast. You may have limestone or chalk, and a hundred yards away clay or peat soil, and yet all may have the sandy soil on the seaward side. This small space makes enormous differences in the intensity of the wind. Likewise in landward sites, according to the precise placing on the spur of a hill, on the top, or under the flank of a hill, so is the variation of the wind. Often the hill-top site is warmer than the valley, because some valleys conduct the wind as in a flue. One almost needs to live on a site before deciding upon the place for the

mansion and plantations, selecting the ideal spot where shelter may be obtained and the views retained. It is not unusual to find a proprietor in a strait between shelter and view, whereas sometimes a little alteration in the placing of the house would have secured both.

*Planting  
other than  
ornamental.*

Whilst the primary object of this chapter is ornamental planting, no disparagement is intended upon planting for profit, or for expediency, whether for shelter, game coverts or to prevent coast erosion, or any such kindred object; rather the encouragement of such is the purpose. Every one who plants should have an intimate grasp of these conjugal branches

But now frankly confessing that we cannot rival nature, in what way are we to advance?

*Modus  
operandi.*

In the garden the eye demands a kind of beauty which, while it looks spontaneous, is really civilized, delicately finished and polished. The art of landscape architecture is to create refined results which look as though, with very little assistance, nature might have produced them in some lavish yet gentle mood. Patiently, artfully, the whole is planned with full consideration of the intrinsic charm of the smallest feature, yet always with the broad effect kept steadily in view.

To descend from theory to practice, begin with the shelter and screen plantations. Every garden worthy the name must have privacy and seclusion. The shelter plantations



FIG. 398 —VIEW SHOWING COMBINED GROUPINGS OF NOS. 397 AND 400  
IN THE OPEN LANDSCAPE

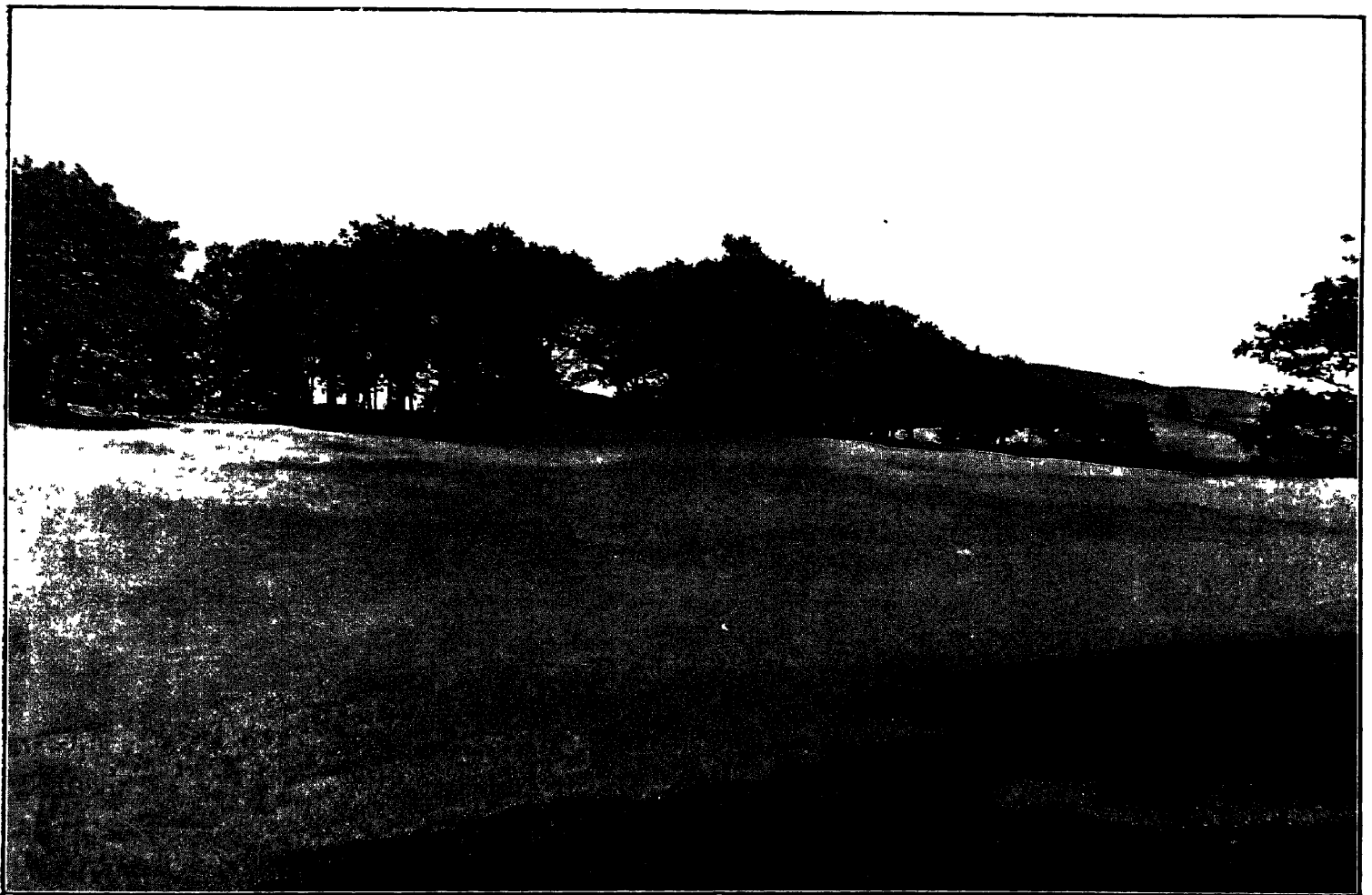


FIG. 399 —GROUPING OF OAKS ON ROCKY KNOLL.

## PLANTING FOR LANDSCAPE EFFECT.

need to be laid in lavishly. As in architecture, construction which is mathematically correct, does not always appear sufficiently strong to the eye, so in planting it is often necessary to carry operations further than the requirements of shelter dictate, before the garden and grounds assume a really sheltered and secluded appearance. In the case of the boundary plantations, one can resort to a free use of the saw and the axe in cutting out afterwards, if they encroach too much upon the garden or obstruct the vistas. The positive wind break will need both tall up-grown trees and a dense undergrowth, which means that the tall trees will have their lower branches pruned to let in light and air to the undergrowth. The taller trees, and those which grow quickly, are useful for screening off unsightly objects outside the boundary. Try, if possible, from the very first, to have some definite connective motif traceable throughout the whole configuration, even in the screens and boundary plantations. As in a piece of music, there is some dominant key-note and recurring chords, likewise in a picture there is usually a prevalent colour scheme and connecting links of form, to which all are subsidiary, so ought it to be in a scheme of planting.



FIG 400.—OAKS IN CLUMPS

*Scale and  
balance.*

Here the insistent question of scale and balance now thrusts itself upon our notice. Scale deposes the size of the trees and also the extent of each plantation. Both will bear a direct relation to the size of the domain to be planted. We must consider the size of the mansion, also the proximity of such features as terraces and other architectural motifs near the house to which in general the planting must be subordinated. In other words it must play up to them and not dwarf them.

In determining the scale of his plantations, Repton's method was to provide himself with a number of poles ten feet high, held either by his men or stuck in at the various positions, where he intended to plant, while he walked about and examined them from every point of view. He was thus enabled to judge fairly well the ultimate effect and the scale of trees, twenty, thirty or more feet high, as seen from all angles.

Planters need the gift of forecasting their effects thirty or more years in advance, otherwise their cherished specimens may have to be topped or lopped, which is always disastrous to stateliness. Pollard Willows or Ash are in keeping with the streams and fences of the meadows, and at Epping Forest the pollarded beeches and hornbeam look picturesque, but picturesqueness is not the primary aim in park and garden plantations.

*Quantities,  
size and  
shape of  
plantations.*

Repton, who is a safe guide, in giving a general rule says "plant the hills and flood the hollows." This broad axiom largely solves the initial problem. It is obviously right, because by planting the higher ground and leaving the glades open, with or

## PLANTING FOR LANDSCAPE EFFECT.

without water, we mostly have our quantities decided for us, and their irregular disposition and balance. The size of the plantations being decided, their shape also falls in, for where the knoll throws out a spur, the trees overlap and emphasize it, and where there is a bay in the glades the trees recede, thus securing a pleasing and easy flow of curvature and line. The value of vistas and open glades, flanked with plantations, is enforced by landscape painters, particularly by the saner, early-English water colour school, such as Turner, Constable, De Wint, Cox, Copley Fielding and their contemporaries.



FIG. 401.—GROUP OF NINE ELSMS.

metrically, nature disposes their mass and outline in freedom, as may be seen from Illustration No. 401; but if originally they are planted irregularly as when self-sown, a better effect results. In order to secure an air of nonchalance, Repton recommended making a wide hole, and planting say seven, species of one tree in it, leaving them to fight it out for themselves. This is one of many ways which this master recommends to secure the apparent freedom of nature, but of course it is not to be repeated indefinitely. Every man in his practice stores original lessons how to secure homogeneous masses, having all the charm of naturally-grouped foliage. It is a theme for reflection

Easing off the abruptness of the plantations resembles the vignetting a picture; it needs to be done with deftness. Occasionally a mass of tall trees needs bringing down to the sweep of the land, and outlying groups or single trees of thorns or crabs of lesser growth are inserted so as not to obstruct the glades and yet they must not appear as irritating dots interrupting the pleasing sweeps of the greensward. One may see instances how nature has effected the easing off of hard edges to plantations by colonies of self-sown Birch, sometimes with Holly intermixed.

*Easing off  
hard edges*

Beside the large plantation and its out-lying spurs, we may have the small group of timber trees, standing independently by themselves without any easing off. That these have a distinct charm of their own is provable by reference to the several photographs given in Illustrations No. 397, 400 and 401. Even where such groups are planted sym-

*Freedom—  
how  
attained.*



## PLANTING FOR LANDSCAPE EFFECT

that oftentimes purely utilitarian plantations, which exist solely for the timber and profit, are distinctly pleasing, whilst those which are purposely ornamental are most unsatisfactory. The result is due to the fact that ornamental plantations are in the main made up of an unrestful jumble of too many species of trees and many of them exotic, whereas utility confines itself to one or two species.

It is impossible to lay down even approximate rules for general application, either as to the free distribution of trees or as to their distances apart as planted. In the open country, under ideal conditions, half a dozen beech may cover half an acre, whereas in a smoky district it may need three or four times the number to furnish the same area. The best advice which can be given to the tyro is to study, sketch and note those groupings which appeal to his æsthetic sense. He can never have too much knowledge of this kind. American university students, in their course of landscape design, are taught to make records of the elementals of pleasing schemes roughly drawn by means of a rapid military surveying instrument, and similarly to take contours of the knolls and spurs by a pocket level. The distances are carefully stepped out and give sufficiently reliable data for the purpose.

*Effects at  
different  
seasons.*

This systematic study of existing examples must be continued through all the seasons of the year to be of value, for trees have their short lived spring and autumn glories and their more prolonged summer and winter aspects. In general the fourfold aspect is arranged for, but if it is laid down that there has to be special prominence given to say autumn colour effect, or that the garden be specially furnished in the winter months, it means some sacrifice to the even tenor of the aggregate effect.

For winter effect in the open park, plant those evergreen trees which age picturesquely, such as Scots Fir, cedar of Lebanon, Yew, Holly and Evergreen Oaks in preference to the youthfully showy Spruce Firs, Austrian Pines, Indian Cedars and Lawson's Cypress. All these latter are happier in the garden where their severe formality can be tolerated.

*How  
formality is  
avoided*

It can only be repeated, any formality or spottiness should be studiously avoided. It is related of Robert Marnock that he once horrified an up-to-date forester by taking a bundle of Scotch Firs and throwing them broadcast with all his might, directing him to plant each on the spot where it fell. Downing too, in his book on landscape gardening says:—"A friend of ours at Northampton, who is a most zealous planter, related to us a diverting expedient to which he was obliged to resort, in order to ensure *irregular groups*. Busily engaged in arranging plantations of young trees on his lawn, he was hastily obliged to leave home, and entrust the planting of the groups to some garden labourers, whose ideas he could not raise to a point sufficiently high to appreciate any beauty in plantations, unless made in regular forms and straight lines. 'Being well aware,' says my friend, 'that if left to themselves I should find all my trees, on my return, in hollow squares or circular clumps, I hastily threw up a peck of potatoes into the air, one by one, and directed my workmen to plant a tree where every potato fell! Thus, if I did not attain the maximum of beauty in grouping, I at least had something not so offensive as geometrical figures'."

*Architecture  
and foliage.*

In the majority of cases, but by no means all, architecture is helped by a background of foliage in mass. Even when the building is small, such masses of foliage are never too large in scale. Who does not know the characteristic sketches by J. D. Harding of cottages flanked with tall compact elms or sycamores to the proportionate height of one-third cottage to two-thirds foliage? This is the general rule laid down by Ruskin in matters artistic. So we may say either two-thirds house and one-third foliage or one-third house and two-thirds foliage. Equal bulk or equal height may be symmetrical balance but it is not an artistic balance. Architecture deals largely in symmetrical balances and values; this is one of several reasons why gardening is the more difficult art, as Lord Bacon says.

## PLANTING FOR LANDSCAPE EFFECT.

It is when we come to planting the ornamental shrubs near the house and fringing the lawns, that our chief difficulties arise.

In choosing the shrubs and trees for the purely ornamental plantations, we must remember that they are not like the wild plants, all natives of one country, and harmonious either by association or by some natural law. They come from many countries and are not naturally conditioned to ours, and unless arranged with care, often look incongruous together. Therefore if it be the garden owner's supreme desire to grow beautiful flowering shrubs, and display them to the best advantage, he must at any rate design his arrangements of them on some principle both horticultural and æsthetic. Directly he begins to consider not merely the horticultural rarity of a plant, but the question of its environment as affecting beauty, he is drawn into the whole question of

*Shrubby  
borders.*

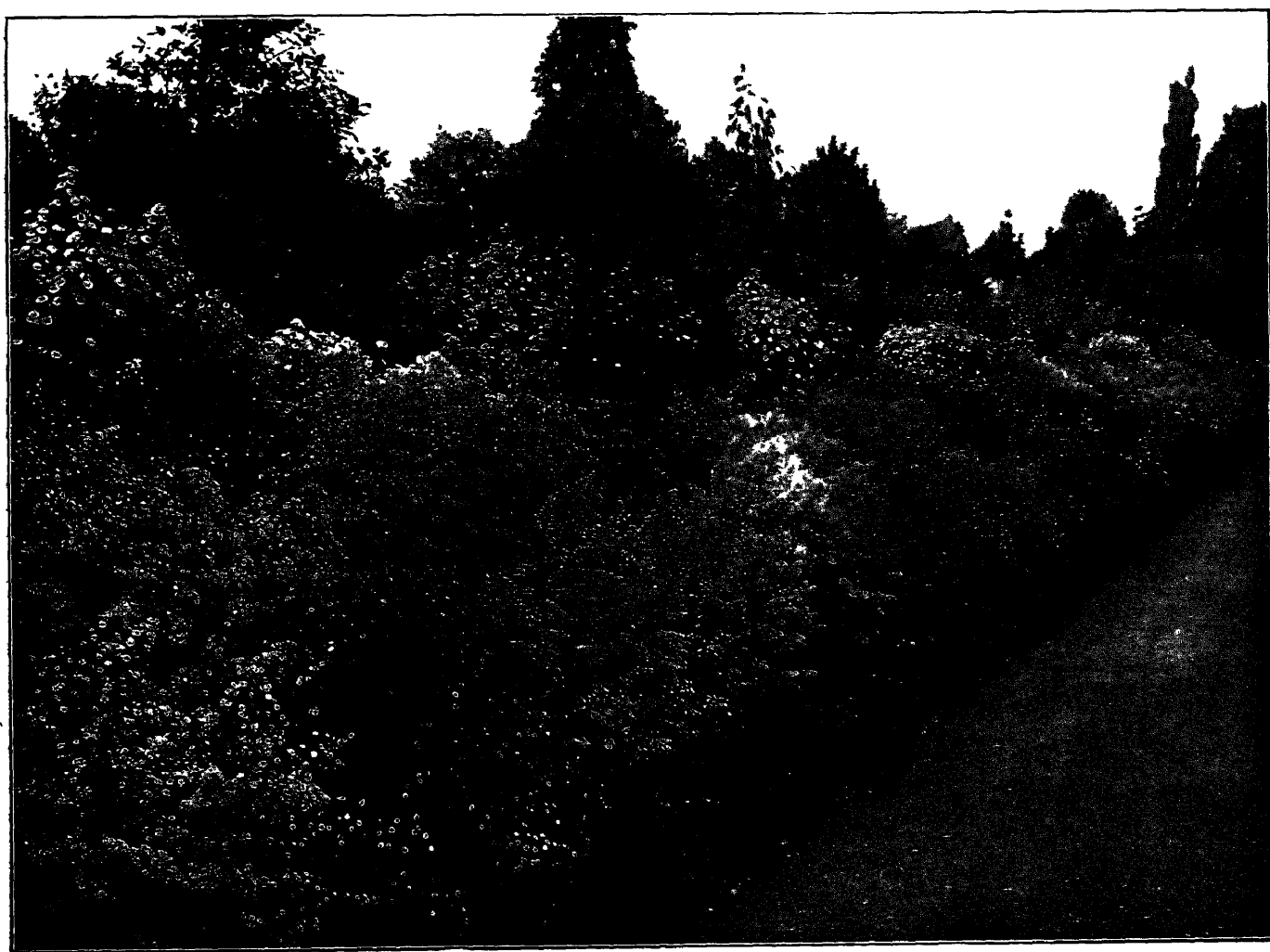


FIG. 402.—A WELL-PLANTED SHRUBBERY BORDER

garden design from that angle. Then he finds that the naturalistic theory fails him. He cannot imitate nature in the arrangement of plants that have their native homes in different continents and may never have made each other's acquaintance until they met in his garden. If he attempts no arrangement at all, he will find that he has produced a chaos as ugly as the mixed shrubbery of the suburban garden.

There are a few natives, such as the Barberries, the Gorse and Broom, together with the Crabs and Hawthorns, amongst which we can include the scarlet and the pink, and the double morella Cherry and the Briar Roses. In fact almost all the Roses, especially those with beautiful foliage, and we may include the tree Peonies which, although not native appear so. All these harmonize without incongruity with those shrubs which seem to belong to the immemorial past of our gardens. There is the Arbutus, where it will grow. Then there are such shrubs as the Lilacs, Laburnums, Quinces, Fuchsias, Coronilla, Andromedas and Colutea, although they are foreigners in

## PLANTING FOR LANDSCAPE EFFECT.

the first instance have become through a century or more of acclimatization as much at home as our natives. Conversely there are unsociables such as the Aucubas, which five centuries of acclimatization will never succeed in harmonizing with our native foliage.

Deciduous shrubs on the shrubbery border (and also in the rock garden) appear to be nothing more than failures or dead in the winter months. Rhododendrons are no better friends; their coarse thick leaves are not in harmony with our foliage, yet no client will tolerate their absence. The only place where they can be said to be at home is in a clearing in a wood. Whether in the garden or the park it will be found that hybrid Rhododendrons are striking when in bloom, but they will not brook competition or comparison with other spring-flowering shrubs. They are of the unsociables of shrubland, and for this reason are best planted in drifts or glades by themselves, of one kind against a background of sober foliage, or if introduced amongst other shrubs preferably those which do not flower at the same season of the year. Their harsh foliage has none of the grace of the Laurustinus, for instance, although the foliage of the latter may be said to be Rhododendron foliage in miniature. Laurels, common and Portugal, are passable and only happy when seen against the bare branches of winter. The common Laurel will clothe any waste heap of rubbish and stifle any welter of nettles and docks everlastingly if cut back annually.

*Shrubs with striking foliage*

Trees and shrubs with strikingly coloured foliage are most difficult to place in conjunction with other shrubs, and those with very dark or light tones. Too many copper Beeches are usually in evidence, and worse still is the dark red foliage of *Prunus Pissardii* which simply kills any arrangement of shrubs into which it is inserted. Yet one has seen it effectively placed in the garden of a brick and tile cottage, where red is the prevalent note, but it was by itself. Trees and shrubs with such distinctive foliage are effective in pairs as flanking steps or marking or hiding some corner in the architecture, or where specimens are required, but in any grouping of shrubs they are too violent. In murky town gardens, restricted as they generally are, and subject to strong currents of wind, the violent coloured trees and shrubs are not out of place, and such as the hardy golden Privet are welcome, either as hedges or in clumps and others likewise variegated, may preponderate, or preferably be almost wholly of such along with pendulous or weeping trees, as they are called.

*Placing flowering shrubs*

The placing of flowering shrubs in any quantity or variety is much harder than arranging the herbaceous borders, because the units of the shrubs are much too large to make any interweaving of flowers and foliage possible. To obtain anything like a display out of the shrubs, they must not be placed close together. When herbaceous plants grow too close, they can be re-dug, split and the ground manured; not so the shrubs. Wholesale removals, experiments and new combinations are always apparent, and also removals of smaller shrubs when overshadowed, shew gaps of branches denuded of foliage behind. This raises the question of introducing herbaceous flowers to the front of the shrubbery border, a device not often happy in its results. The plants spoil the perfection of the shrubs, and the roots of the shrubs allow only the grosser herbaceous plants to flourish, although certain hardy roses on their own roots, such as *Fellenberg* and *Bardou Job*, can make headway against the network of roots. The background of shrubs is an aid to the effect of the herbaceous flowers, but it is dearly bought. In nature we know how the Bluebells and later the Foxgloves, Woodruff, &c., commingle with the coppice, and if any marginal adjuncts are to be allowed this idea is the one to be followed namely great stretches of almost one colour and one plant.

In designing a shrubbery border, having determined its extent, its outlines and the general silhouette desired, fix upon some well furnished hardy shrub, such as the Holly, with its many varieties, apportioning it in good masses against this plan the effects of gay-leaved, or flowering shrubs, deciduous or evergreen as the case may be, in groups,

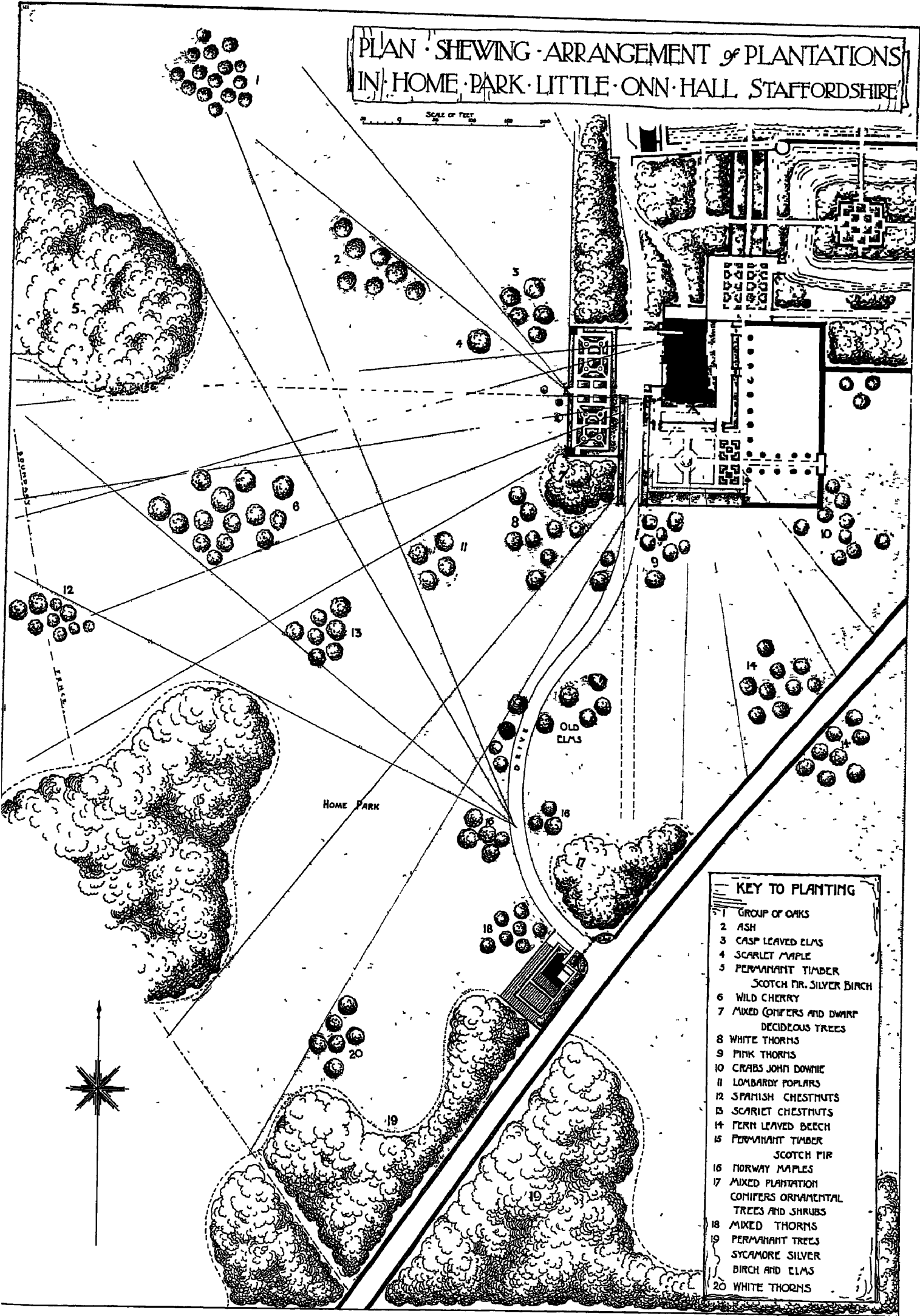


FIG. 403.

## PLANTING FOR LANDSCAPE EFFECT.

*Placing  
flowering  
shrubs*

mostly with here and there an accident or a surprise. Never fear to insert bold masses of shrub of such proved utility as the Holly, anything will group with it. Even such formal coniferous shrubs as the Cupressus or a clump of Irish Yew. Nothing is more effective by way of contrast than three or five Silver Birches, their white tresses spreading like a fan, an infusion of the picturesque. The background shrubs must be somewhat dense, but the flowering shrubs in front must be given space and a certain distance between to get the best from them. Remember in the case of a garden that it is a design; and pattern and rhythm are the soul of design. Directly either the artist, musician, architect, or gardener considers his design, he must have a degree of formality.

*Rhythmic  
effect.*

We wish for instance, for some contrast between two plants of different character, so that the beauty of both may be enhanced. That contrast will be insignificant if there is only one example. We must either therefore repeat it at intervals, along the border, or else emphasize it by the use of a good many plants of the two contrasting kinds arranged together. The writer has always found that any arrangement of shrubs or of herbaceous borders, which has struck him, has been based upon the repetition of certain dominant features, and such a basis if formal is found in the best effects in nature, thus we may secure that great charm of natural foliage, balance without symmetry.

*Examples*

The plan of a portion of the home park at Little Onn Hall, Staffordshire (Ill. No. 403), demonstrates how the principles discussed may be applied to an individual instance. The radiating lines show the angle included in various views which it is the object of the plantations to frame and emphasize. In this case, as the site is very flat, there was an opportunity for constructing fine avenues, but for several reasons, the chief of which was a desire to take advantage of some planting done a few years ago, the method shown was adopted. These plantations have all curved outlines, and this is the most usual form, but it is not by any means necessary that this should always be so. While the round "clump" and the straight thin "belt," which were the stock forms of plantation a hundred years ago, are alike hideous, instances will arise both in the garden and park where any but a straight edge to a plantation would be artificial and affected. In such a case any stiffness can easily be prevented by the arrangement of the trees, here receding from the edge, and there with their branches sweeping out over the grass or roadway, which borders it.

The general lines to be followed in arranging a border in the more ornamental portions of the grounds, where more of variety is in keeping than would generally be the case, is shown in illustration No. 404, which is a reproduction of part of a planting plan prepared by the author some years ago for a garden in North Wales. Illustration No. 406 gives a portion of it to a larger scale, and on this are marked all the varieties to be planted. The undergrowths and nurseries are indicated by numbers, and the larger permanent trees by arbitrary signs. This method I have found to be a good one, as it helps to ensure that every part of the bed receives its proper proportion of both. Of course in this case, where the plantation is close to the residence and skirts the carriage drive, large forest trees are not required, but the general principles of the arrangement would be the same, and would be similarly indicated, whatever the scale of the planting.

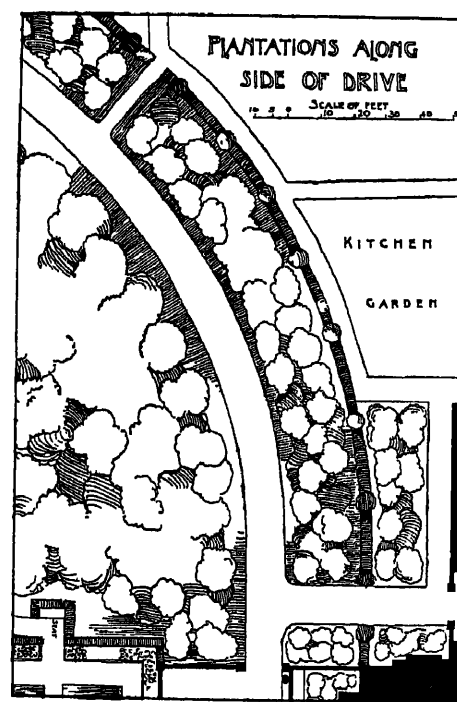


FIG. 404.

## PLANTING FOR LANDSCAPE EFFECT.

Winter effects will need special attention, and a careful and discriminating use must be made of those evergreens and conifers with brightly-coloured or glaucous foliage, and hardy winter-flowering varieties such as the Laurustinus. Those bearing brightly-coloured berries will also be useful, such as *Pernettya mucronata*, *Cotoneaster horizontalis*, *C. macrophylla*, *C. Simmonsi*, *Berberis stenophylla*, *B. Darwini*, *Symphoricarpos racemosus*, *Cratægus Lelandi* and *Skimmia japonica*, while, if there is ample space, mountain Ash, tree Ives, the red and yellow berried Hollies, the fire Thorn and the cockspur Thorn may also be used. *Examples.*

If the park is to be grazed by cattle it will be necessary to fence the plantations, special care being taken that they cannot reach and feed on yews, as these are a deadly poison, though greedily eaten by all forms of farm stock. The best fence is that which is least conspicuous without being flimsy, and, for most positions nothing is better than strong iron hurdles. These may be rendered still more inconspicuous by planting outside them, Hollies and Thorns and others which the cattle reject. Undergrowths of Yew, Holly, Dogwood, Privet and Mahonia, may be scattered at irregular intervals towards the margin, and, at times, recede far into the plantation.

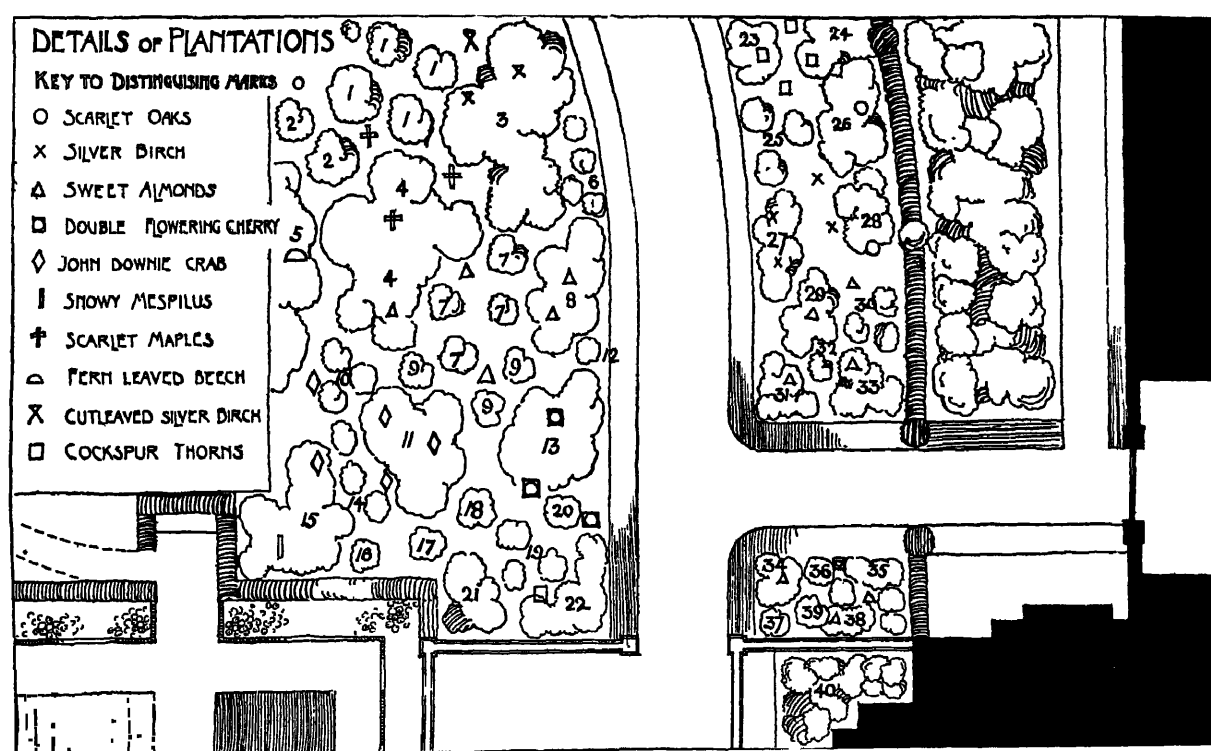


FIG. 406.

Wherever new plantations are to be formed, whether in the garden, park or moorland, the ground should be properly trenched and prepared. This may seem needless, but practical experience of planting both with and without trenching, abundantly proves that the extra cost is far more than compensated for, by the abounding vigour and the greater rapidity with which the trees and shrubs take root and grow. Greater care will, of course, be necessary in preparing beds for choice shrubs in the garden than in the case of those for plantations in the park, both as regards depth of soil and the amount of manure added; but both should be thoroughly trenched. How the surface of the bed should be shaped is clearly shown by comparing the plan and sections of a small plantation given in illustration No. 407. *Preparation for planting.*

When planting single specimen trees, either in the park or on the lawn, the mistake is often made of forcing the roots into a hole which is far too deep and narrow. Instead of this a broad hole should be made, and a layer of top-spit from a pasture mixed with a little well-rotted manure (never raw manure), or leaf mould placed in the bottom. On this the roots of the tree should be spread out in a natural manner, and the stake *Practical hints.*

## PLANTING FOR LANDSCAPE EFFECT.

### *Practical hints.*

to which the tree is to be tied well driven in, while there is no danger of driving it into the roots as there would be if it is put in as an after-thought. The hole may then be filled up with the same mixture of turf, mould and manure, and well trodden down, and, if at all dry, watered freely. The turf may be relaid over the whole of the roots except for a distance of eighteen inches round the stem, which should be kept clear of grass until the tree has become thoroughly established.

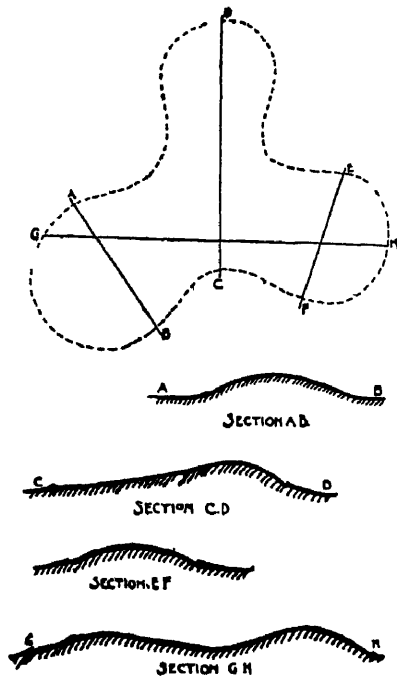


FIG. 407

It is better that the crown of the roots should stand up above the surface a little than that the stem should be buried. If only a few inches are covered, the tree will suffer seriously; if buried deeply, it will almost certainly die within a few years. Some trees, such as poplars and willows, form fresh roots if not too deeply buried, but the majority of other kinds eventually succumb to it.

In the home park, specimen trees will have to be guarded, and this is best done by three or four stout posts driven into the ground and connected by rails at a sufficient distance from the stem to keep cattle from browsing on them. Trees with pendulous branches are not, for this reason, suited to park planting, instead, those with strong clean stems from eight to ten feet high, are preferable.

In concluding this important chapter, let that be stated which has been said in another form, that planting is not a matter of rules. It is that branch of our work which appeals most to our sentiments and emotions and where we express ourselves by artistic forms, beautiful in themselves, allowing the imagination free play. It is here we invite magic and mystery, the stock-in-trade of the poet and artist, by which garden design can be keyed up to sublimity. The finished product must not bear any trace of stiffness or pedantry or even of thoughtful care, yet abundant thought and care must be bestowed upon it. It must impress the beholder with the sense of something accomplished with unerring tact, and for this reason for the most part must be unostentatious. The ideal is to dispose it so that it looks as if it had sprung naturally, blending perfectly with its surroundings.



1

2





FIG. 408.—WOODLAND GLADE THROUGH PLANTATION OF SPRUCE FIR AT WOOLLEY HALL, MAIDENHEAD, FOR WALTER H. COTTINGHAM, ESQ.



## CHAPTER XVIII

The arrangement of plantations, groups and single trees having been dealt with, and the power they exercise in imparting character to the garden and landscape discussed, it is now purposed to give a list of the most useful kinds of trees for the various plantations, with a few descriptive notes, and some indication of the conditions under which they luxuriate. Before proceeding to the actual lists, there are, however, a few important considerations, already referred to, which may with advantage be emphasized, because upon their observance depends, to a large extent, the pleasure derivable from foliage and woodland scenery.

The following lists do not pretend to any degree of completeness, nor do they include all trees worthy of a position in the garden or park; much less is it suggested that each garden should be planted with the same varieties of trees and shrubs, for the result would be to reduce their decoration to such a degree of sameness as to create monotony. Each should have individual treatment bestowed upon it, and in no department is this so necessary as in the choice and arrangement of trees and shrubs. The lists are, therefore, merely first aids to those about to plant or lay out gardens.

To make the selection of trees and shrubs for various situations more simple, they are classified so far as possible under several headings, as deciduous trees, hardy conifers, &c, and the following abbreviations are affixed to those which, in addition to their general use, are suitable for growing under special conditions, as — S, trees and shrubs for seaside planting; T, for town and suburban gardens; P, those which thrive best on peat, or on soil where lime is absent; U, varieties suitable for under-growths and planting in shady places. All, of course, succeed in the more favoured districts.

To ensure correct nomenclature, I have followed as far as possible the authority of the "Kew Hand Lists" I have also given in many cases the common names by which they are familiarly known, as well as synonyms. This I feel will assist a purchaser when selecting plants from the nurseries.

It will also be seen that, in some cases, such as in *Acer* and *Prunus*, that rather lengthy notes are made. The reason for this is to try to induce intending planters to use more of these beautiful trees than has been the case in the past.

The conditions under which they are to be used may be summarised as follows:—

1. Trees and shrubs which are indigenous, or those which have been introduced into this country, and are allied to and succeed as well as native varieties, should be preferred to those which only remind us of foreign countries, or are simply freaks of Nature.

*General  
Principles.*

## TREES AND SHRUBS FOR GARDEN AND PARK.

### *General Principles.*

2 The proportion of deciduous trees and flowering plants should, in most cases, exceed that of evergreen shrubs and trees. This is, however, to a certain extent, a question of locality. A seaside garden, for instance, requires a larger proportion of evergreens than an inland garden. The same rule applies to gardens situated in districts where white chalk or limestone gives tone and character to the district.

3. Whilst conifers may, under certain conditions, be fitting objects for the garden, especially when used as formal trees on the terrace, they are seldom satisfactory when mixed with native trees in the park or home-landscape; an exception

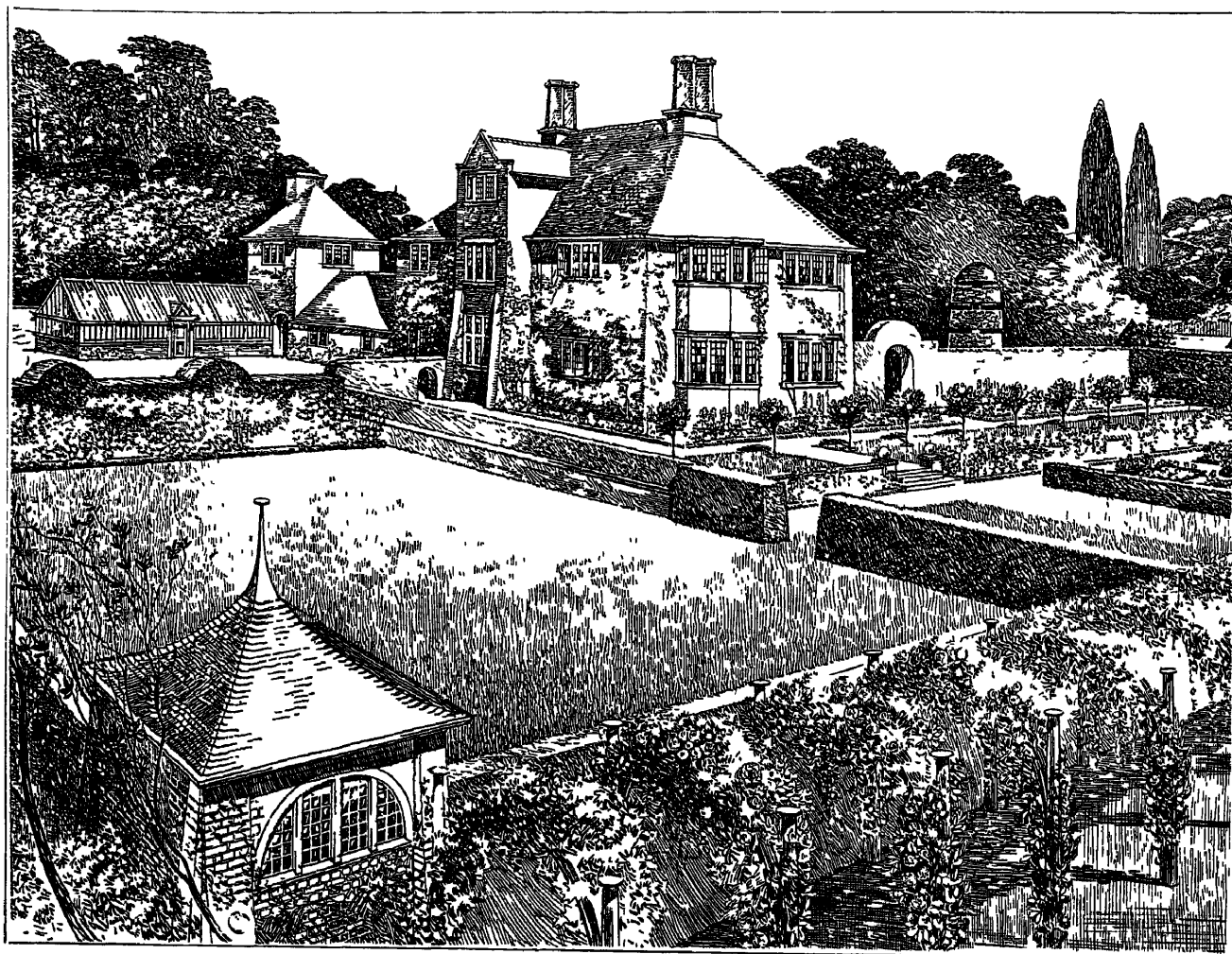


FIG. 409.—VILLA GARDEN AT WHITEHILL, BERKHAMSTED

to this rule may be made in favour of *Pinus sylvestris*, the "Scotch pine," which is effective when planted in masses or in conjunction with *Betula alba*, the common or silver birch.

4. Collections of trees, shrubs, or conifers, might be arranged in such a way as to display the intention to possess a choice variety of one particular class of plants

5. Certain trees are to be avoided as inimical to the effect which plantations or groups of shrubs should give. Thus the free use of *Cupressus Lawsoniana* and *Araucaria imbricata*, or monkey-puzzle, is usually undesirable. Again, when a garden is favourably situated in a district where most subjects thrive, avoid planting shrubs such as *Aucuba japonica* and golden elders, which are reminiscent of a smoky atmosphere.

6. Flowering trees and shrubs deserve to be much more largely planted than they are at present; this rule refers more particularly to those old-fashioned varieties that are sometimes spoken of as being common. Amongst these may be mentioned *Laburnum*, *Syringa*, *Philadelphus*, *Ribes*, *Deutzia*, *Viburnum*, *Diervilla*, and shrubby *Spiræa*, most of which bear not only beautiful but also fragrant flowers.

7. Dotting a lawn all over with specimen trees is a doubtful expedient, and one which more often detracts from, than adds to, the effect of the garden, since breadth is destroyed when trees are planted in this way. Allied to this is the doubtful practice of planting "commemoration trees" by celebrities, or to commemorate some family event. Planted often in an unsuitable situation and in warm weather, and having been coddled for the occasion, in a few years they dwindle to wretched disfiguring skeletons. If such trees are planted, select an Oak, or, if an evergreen is desired, a Holm Oak.

*General Principles.*

8. Indiscriminate mixing of shrubs is to be avoided, and character and scale of foliage should be observed. Thus Rhododendrons look best when grouped in very large masses, but Azaleas may successfully be planted in smaller beds with Kalmias, Daboeciae and Alpine Rhododendrons.

9. It is possible to over-plant a garden, and so destroy its breadth of aspect. Illustration No. 409 shows how little planting is required in many gardens.

10 It is well to remember, when purchasing trees and shrubs, that those which appear to be the most thriving and healthy in the nurseries are probably those which have stood the longest time un-transplanted. Shrubs recently transplanted do not appear nearly so robust and vigorous, but are much safer to move.

ACER.—A. PSEUDO-PLATANUS, the "Sycamore," is one of the hardiest as well as the most handsome of British trees; it is valuable for planting as wind screens in exposed situations, for forming large masses of foliage, or for avenues. It grows quickly, and fairly large trees are procurable from most nurseries. There are numerous varieties worthy of a place in parks and gardens. A. p. p. flavo-marginatum, known as the "Corstorphine Plane," with variegated foliage; A. palmatum atropurpureum, a purple form, are excellent.

*Deciduous trees.*

A. PLATANOIDES, the "Norway Maple," with its delicate green tints in the spring, turning yellow in autumn, is particularly effective. The varieties Reitenbachii, purpureum, palmatum, and Schwedlerii are distinctly characteristic.

A. CAMPESTRE, the common "European Maple," has five-lobed leaves, and when planted with A. c. variegatum a good contrast is obtained. There is also a golden form, sold under various names.

A. DASYCARPUM, the "Silver Maple," is most valuable, forming as it does a specimen tree of a more or less pendulous habit.

A. NEGUNDO, the "Box Elder," with the varieties californicum aureum and variegatum, is decorative, and only suitable for gardens.

A. PICTUM is a distinct form, and in the variety A. p. rubrum (syn. A. colchicum rubrum) the young stems and leaves are a bright crimson colour. Another fine variety is A. p. aureum. A. macrophyllum, the "Californian Maple"; monspessulanum, the "Montpelier Maple"; and saccharinum, the "Sugar Maple" are good species, while the beautiful Japanese Maples, A. japonicum and A. palmatum, with their fine cut-leaved varieties, are useful as low-growing forms of this genus, suitable for sheltered parts of the garden but not for the park.

ÆSCULUS.—Æ. HIPPOCASTANUM, the "Horse Chestnut," may be seen on about every estate. It is suitable for use in large avenues or for clumps in the park, or singly as in illustration No 413, with the characteristic play of light on the foliage. Both in spring when in flower, and in autumn when the foliage has assumed its resplendent glowing tint, it forms a prominent feature in the landscape. There are several other forms which commend themselves both for lawn or landscape; they are Æ. carnea, the "Red Horse Chestnut"; Æ. californica; Æ. indica, the "Indian Horse Chestnut"; Æ. flava, the "Sweet Buckeye"; Æ. Pavia (syn. Pavia rubra), the "Red Buckeye"; Æ. turbinata, and Æ. parviflora (syn. Pavia macrostachya). T.



FIG. 410.—SCOTCH FIR (*PINUS SYLVESTRIS*), IN FRONT OF  
RESIDENCE AT WINDERMERE.



FIG. 411.—WOODLAND PLANTING AT GRASMERE, FOR  
W. H. HOYLE, ESQ.

## TREES AND SHRUBS FOR GARDEN AND PARK.

**AILANTHUS** — *A. GLANDULOSA* ("Tree of Heaven") makes a well-furnished specimen tree when planted as a bush. It is equally serviceable as a standard on long, clean stems six to eight feet high, pruned to form a good head, the flowers are inconspicuous, but the fruits are bright-coloured and effective. *Deciduous trees.*

**ALNUS** — *ALNUS GLUTINOSA*, the "Common Alder," has few equals for planting near the seaside or on waterlogged land. A fine group of *Alnus*, profuse in catkins, overhanging the margin of river or lake, is superb. *A. g. aurea* (golden), *A. g. imperialis*, and *A. g. laciniata*, cut-leaved forms, are effective. *A. incana*, the "Speckled Alder"; *A. maritima*, the "Seaside Alder", *A. rhombifolia*, the "White Alder," and *A. serrulata*, the "Smooth Alder," form very useful subjects. T.S.

**AMYGDALUS.** See *Prunus*.

**BEECH.** See *Fagus*.

**BETULA** (Birch). *BETULA ALBA*, the common Birch, is one of the few trees which never seems inappropriate. Its silvery appearance and graceful pendulous habit

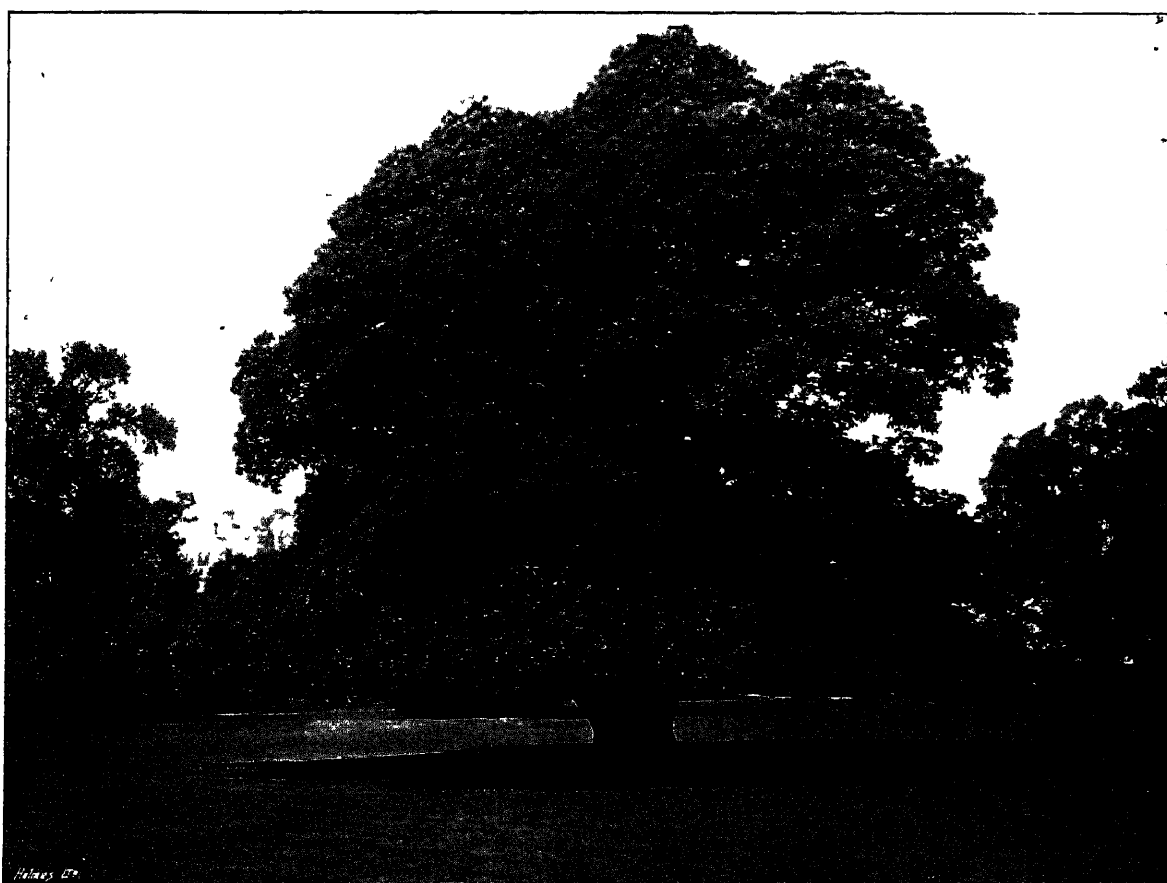


FIG. 412 — A SPANISH CHESTNUT.

adapt it to any position. The following are forms worthy of mention. *B. a. pendula* Youngii, "Young's Weeping Birch", *B. a. purpurea* and *B. a. dalecarlica*; *B. lenta*, the "Cherry Birch", *B. lutea*, the "Yellow Birch"; *B. nigra* (syn. *B. rubra*) "Red Birch"; and the beautiful white-stemmed *B. papyracea*, the "Canoe or Paper Birch." The pendulous forms can be effectively placed near a stream or by the margin of a lake, while groups of any of the species on a hillside, especially when in conjunction with *Pinus sylvestris*, are charming. T.

**CARPINUS.** *C. BETULUS*, the "Hornbeam," is the type of a useful ornamental genus. The most notable forms are *C. b. aspenifolia*, *C. b. columnaris*, *C. b. pendula* and *C. b. pyramidalis*, while *C. caroliniana*, the "American Hornbeam," *C. laxiflora* and *C. cordata*, from Japan, are good species. It is not generally known that the Hornbeam is an excellent tree for exposed situations and cold clay soils, where it is more likely to thrive than the Beech.

## TREES AND SHRUBS FOR GARDEN AND PARK.

### *Deciduous trees.*

- CARYA.** A genus of ornamental trees related to the Walnuts, with bold foliage which turns a fine yellow colour in the autumn. *C. alba* the "Shell-bark Hickory", *C. sulcata*, the "Big Shell-bark"; *C. amara*, the "Bitter-Nut", *C. porcina*, the "Pig-Nut," make a good show in the park when planted in groups of three or five.
- CASTANEA** *C. VULGARIS*, the "Sweet or Spanish Chestnut," makes a huge tree suitable for the park (Ill. No. 412). There are numerous varieties of the type.
- CATALPA** The most common species met with is *C. bignonioides*, the "Indian Bean" (syn. *C. syringæfolia*), which bears large panicles of white flowers tinged with violet, spotted with purple and yellow. It is an excellent specimen tree for a lawn, also as a standard on the sheltered side of a walk, and grows to a height of more than thirty feet. The species *C. Bungei*, *C. cordifolia* and *C. Kämpferi* are useful and interesting.
- CERCIS SILIQUASTRUM.** Although the *Cercis* are ordinarily classified as shrubs, this variety which is known as the "Judas Tree" grows more than 20 feet high. There are two varieties, *C. s. alba* and *C. s. carnea*.
- CHERRY.** See *Prunus*.
- CHESTNUT.** See *Æsculus* and *Castanea*.
- CRATÆGUS.** One of the finest of the ornamental genera, comprising trees ranging from twenty to thirty feet in height, while other forms have a more shrubby habit.
- CRATÆGUS OXYACANTHA**, the "Hawthorn," is the type, and recommends itself. There is a division into two sub-species, *C. monogyna* and *C. oxyacanthoides*. Under the former, *C. monogyna-præcox*, the "Glastonbury Thorn," is a conspicuous form, beginning to flower in November and forward into March; *C. m. pendula*, *C. m. aurea*, and *C. m. laciniata* are distinct varieties, while sub-species *C. oxyacanthoides* is represented by *C. o. fructu luteo*, with yellow fruit; *C. o. fl. pl. coccineo*; *C. o. fl. pl. albo*, and *C. o. fl. pl. puniceo*. *C. crus-galli*, the "Cockspur or Newcastle Thorn," and its varieties, are the pride of the landscape in the autumn. *C. crus-galli prunifolia* and *splendens* *C. o.* surpass all other in richness of colour.
- Amongst the distinct species are *C. mollis*; *C. cordata*, the "Washington Thorn"; *C. coccinea*, the "Scarlet Haw", and *C. flava*, the "Yellow Haw." *C. Pyracantha* and *C. P. Lelandi* are used largely for covering walls, also to make a border gay in winter. This genus is suitable for any situation, and most of the species and varieties are worthy of places in the park or on the outskirts of the lawn.
- FAGUS (Beech).** **FAGUS SYLVATICA**, the common Beech, has very few equals for an avenue. Unfortunately it does not grow quite so rapidly at first as many trees, and it is often difficult to obtain large plants from the nurseries. It succeeds best on land with a gravel or chalk subsoil. The following are some of the best varieties: *F. s. atropurpurea*, the "Purple Beech"; *F. s. cuprea*, the "Copper Beech"; *F. s. purpurea pendula*, the "Weeping Purple Beech"; *F. s. Zlatia*, the "Golden Beech"; and *F. s. heterophylla*, or fern-leaved Beech.
- FRAXINUS (Ash).** **F. EXCELSIOR**, the "Common Ash," is the type. The pendulous forms can seldom be used with advantage, unless a green bower is required, when they are excellent. *F. e. pendula*, the "Weeping Ash," is the pendulous variety most often met with, *F. Ornus*, the "Manna Ash"; *F. americana*, the "White Ash"; and *F. nigra*, the "Black Ash," are some of the other more distinct species. T.S.
- GLEDITSCHIA.** **G. TRIACANTHOS**, the "Honey Locust," is a leguminous tree with large prickly spines introduced from North America; the leaves are pinnate and deciduous; *G. monosperma*, the "Water Locust," is another specimen from the United States, while China and Japan furnish several very distinct forms with fine foliage.
- JUGLANS.** **J. REGIA**, the "Common Walnut," is the type. It is an excellent tree for large parks.

## TREES AND SHRUBS FOR GARDEN AND PARK.

**LABURNUM.** *L. VULGARE*, the "Common Laburnum," is one of the most useful of flowering trees. Laburnums are usually grown as standards, with a clean stem for about five to six feet from the ground, or they may be often used in positions where a low screen of trees is required. They are useful for growing amongst other trees and shrubs, and stand shade, and flourish by the sea or in a smoky town. *Deciduous trees.*

Other good varieties are *L. alpinum*, "Scotch Laburnum"; *L. Parksii* and *L. Watererii*. T S

*L. VOSSII*, is a strong growing variety with immense trusses of flowers, eighteen to twenty-four inches long.

**LIQUIDAMBAR.** A small shapely tree, valuable for its colour in early autumn; it exhales a refreshing fragrance, and is effective when planted in groups. Two species are worth growing, *L. styraciflua*, the "Sweet Gum," and *L. orientalis* (syn. *L. imberbe*).

**LIRIODENDRON TULIPIFERA**, the "Tulip Tree," makes an interesting specimen for the park. It forms a large trunk, and its habit generally is pleasing. The tulip-like flowers of a green colour, with an orange and yellow fusion, are borne freely in the latter part of July. Two prominent varieties are *L. chinensis* and *L. fastigiata*.

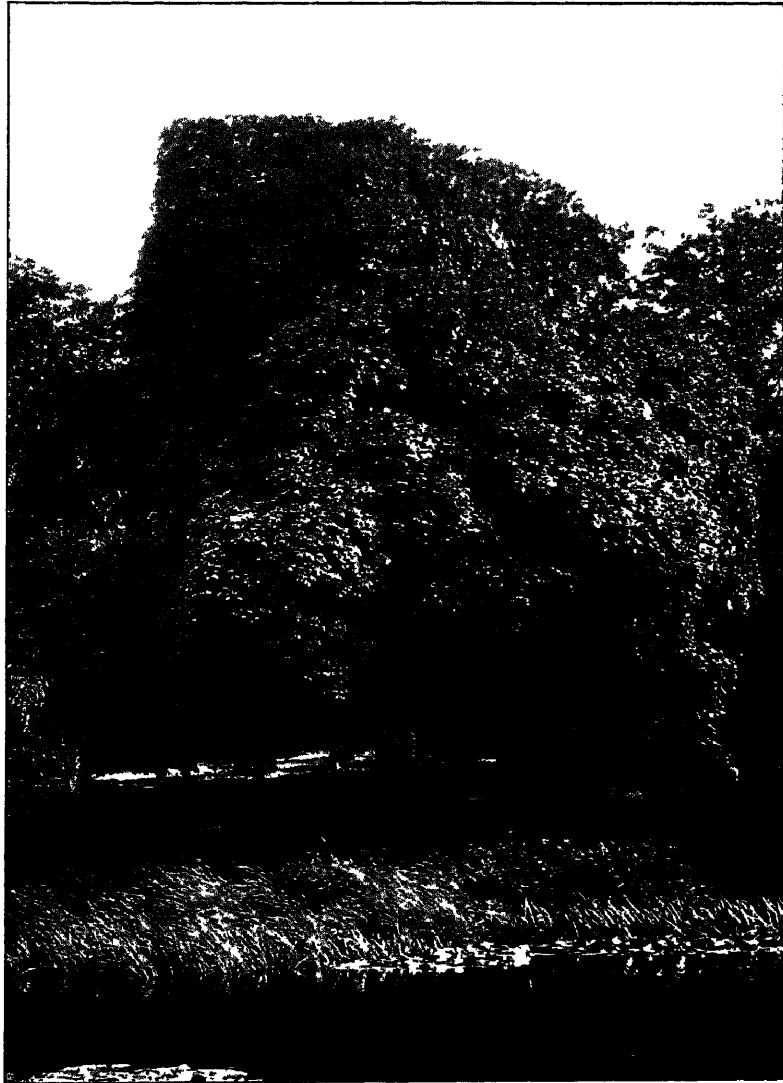


FIG. 413 —A HORSE CHESTNUT.

**MAPLE.** See *Acer*.

**MESPILUS.** See *AMELANCHIER* in the list of Flowering Shrubs.

**OAK.** See *Quercus*.

**PLATANUS.** This genus provides some of the most useful of ornamental trees for use in the streets of towns. It can also be planted in groups or for forming avenues. *P. acerifolia*, the "London Plane," is the best known; *P. orientalis* is a very fine species from the Orient; and *P. occidentalis*, the "Button Wood," is a native of North America. The first named grows to a huge size if planted in the open park (Illus. No. 396). The trees which thrive so well on the Thames Embankment are the same variety. T.

**POPULUS (Poplar).** Trees of this genus are excellent for towns, while some specimens are useful for breaking the sky line in masses of foliage, or for plantations in flat districts. *Populus nigra pyramidalis*, known as the "Lombardy Poplar," is excellent for this purpose. This genus has quite a number of worthy species and varieties. The following are the most distinct:—*P. alba*, the "White Poplar"; *P. balsamifera*, the "Balsam Poplar"; *P. deltoidea*, the "Cottonwood"; *P. d. aurea*; *P. tremula*, the "Aspen"; and *P. tremuloides*, the "American Aspen." T.

**PRUNUS.** This genus is a very ornamental as well as useful one; it includes the Plum, Cherry, Almond and Peach. Dealing with it from the ornamental standpoint, the



## TREES AND SHRUBS FOR GARDEN AND PARK.

### *Deciduous trees.*

following are the most prominent species and varieties, which may be used with advantage in nearly any position. T

P. ACIDA, with its varieties, are useful to plant in the woodland. P. a sem-perflorens is the "All Saints' Cherry." P. Avium, the "Gean or Mazzard," and P. A flore pleno make handsome trees, bearing pure white flowers.

P. AMYGDALUS, the "Common Almond" (syn Amygdalus communis) A well-known tree, but not grown nearly so much as it might be. Blooming in early spring, when other deciduous trees and shrubs are dull and bare, it makes a very desirable plant. There are many varieties, of which P a amara, the "Bitter Almond"; P a. dulcis, the "Sweet Almond", and P a. persicoides are worth planting, but none of these varieties succeed well in the six northern counties

P. CERASIFERA, the "Myrobalan or Cherry Plum," is a small tree bearing white flowers. The variety with fine purple foliage, P cerasifera atropurpurea (syn. P. Pissardii), is one of the finest trees for colour contrast.

P CERASUS, the "Wild or Dwarf Cherry," with a double form, P. C. Rhexi flore-pleno, are charming when planted in groups in the park or near the edge of a wood.

P DAVIDIANA is a species which makes a very fine tree; the flowers are rose-coloured, and a most pleasing effect is obtained when planted with the white variety amongst shrubs with dark green foliage

P. JAPONICA, although, not a tree form, is useful for making a low-growing clump. Two double varieties are P. j. flore-albo-pleno and P j. flore-roseo-pleno

P. LAUROCERASUS, the "Common Laurel or Cherry Laurel," and P lusitanica, the "Portugal Laurel," are dealt with under Evergreen Shrubs. (Syn. Cerasus Laurocerasus).

P. MAHALEB (Syn. Cerasus Mahaleb), the "St. Lucie Cherry," and its variety, P. m. pendula, are excellent for specimen trees, especially the latter, which has a graceful pendulous habit.

P. MARITIMA, the "Beach Plum," as the name denotes, is an excellent subject for the seaside.

P. MUME, the "Japanese Apricot," with its varieties, some with double flowers and rich colours, add to the charm which the genus "Prunus" provides in the early part of the year.

P. PADUS (Syn. Cerasus Padus), the "Bird Cherry," with its host of varieties, is seen to advantage when planted with other trees in a more or less wild state; the flowers are white in colour, and are borne on racemes which vary in length.

P PERSICA, the "Peach," is well-known for its beautiful spring blossoms. The varieties P. p. magnifica, P. p. flore-albo-pleno, P. p. flore-roseo-pleno, are very beautiful

P. PISSARDII, is an excellent small ornamental tree with intensely purple foliage and a multitude of small, white flowers in March and April.

P PSEUDO-CERASUS is a very showy tree from China and Japan with pink flowers, P. p-c James H. Veitch and P p-c Hisakura, are large-flowered forms of intense pink colour. There are many new varieties of excellent colour and form worthy of a position on Lawns.

P. SERRULATA has a peculiar habit of throwing out long horizontal branches. The flowers are borne in profusion on short spurs. (Syn. Cerasus serrulata).

P. SPINOSA, the "Sloe or Blackthorn," is, of course, found wild throughout the country. There is also a double form, P s. flore-pleno.

P. SUBHIRTELLA is a Japanese species which forms an elegant tree about ten feet high.

## TREES AND SHRUBS FOR GARDEN AND PARK.

PYRUS. There are numerous groups in this genus, which include the Pear, Apple, Medlar, Mountain Ash, Service Tree, and others. The trees generally attain a medium size, although some are shrubby. When in flower or bearing fruit, all are very ornamental T S. *Deciduous trees.*

P AMERICANA is the American "Mountain Ash." It grows upwards of twenty feet high and bears scarlet fruits

P ARBUTIFOLIA, the "Choke-Berry," is a shrubby tree growing to about ten feet high. The foliage turns a high colour in autumn. It is therefore a most useful form for shrubberies.

P. ARIA, the "White Beam Tree," is the type of a very ornamental section



FIG. 414 —WINTER EFFECT OF SCOTCH FIR AND SILVER BIRCH.

of the genus. The underside of the leaves has usually a silvery appearance. There are many varieties, all of which are useful for planting in the park; they grow about twenty feet high.

P. AUCUPARIA the "Mountain Ash or Rowan-tree," is most valuable, growing some twenty to thirty feet in height. It makes a good show in the home park or woodland, both when in flower and when bearing its bright scarlet fruits. The varieties, of which there are a considerable number, are all good.

P. BACCATA, the "Siberian Crab," during the month of May is a mass of beautiful blossom, followed by a crop of reddish fruits. It makes a perfect specimen for a lawn or park.

P. CORONARIA, the American "Crab Apple," and the variety P. c. flore-pleno are distinct.

P. FLORIBUNDA, a very free-flowering small tree, or sometimes broad shrub, is an excellent subject for grouping, with its variety P. f. atrosanguinea, on a mound, or for planting as a single specimen; it stands out conspicuously from most of the others owing to its showy colour.

P. GERMANICA (syn Mespilus germanica) is the "Medlar," which should be given a place in every formal garden

P MALUS, the "Crab Apple," of which there is an endless number of varieties, is an excellent flowering tree, particularly the variety "John Downie."

## TREES AND SHRUBS FOR GARDEN AND PARK

### *Deciduous trees.*

*P. PRUNIFOLIA* and its varieties are useful.

*P. SCHEIDECKERI*, a very distinct hybrid between *P. prunifolia* and *P. floribunda*.

*P. DOMESTICA*, the "Service Tree" (Syn. *Sorbus domestica*), grows to a height of over forty feet, and makes an excellent tree to plant amongst other masses of foliage in the woodland. When bursting into leaf, and also when in flower, it is a striking feature in the woodland.

*P. SPECTABILIS*, introduced from China and Japan, has larger flowers than most species. The varieties *P. s. Kaido*, *P. s. flore-pleno* and *P. s. flore-albo* are all good.

*P. TORMINALIS*, the "Wild Service Tree," grows to a height of forty to fifty feet.

**QUERCUS.** *Q. CERRIS*, the "Turkey Oak," with its varieties, cannot be overlooked.

*Q. COCCINEA*, the "Scarlet Oak" of North America, has brilliant scarlet leaves in the autumn, but, owing to its enormous leafage, is somewhat difficult to group with native trees.

*Q. ILEX*, the "Holm Oak," is a splendid evergreen, and most suitable for planting near the seaside. It grows some thirty to forty feet high, and makes a fine mass. There are also a number of varieties of this species, which include *Q. I. Fordii*, *Q. I. latifolia*, *Q. I. longifolia* and *Q. I. rotundifolia*. S.

*Q. LUCOMBEANA*, the "Lucombe Oak," is a variety which carries its leaves well into the spring, at which time they are shed. This form is a hybrid *Q. Cerris* x *Q. Suber*. T.S.

*Q. ROBUR*, the "Common Oak." Under this name are included *Q. pedunculata* and *Q. sessiliflora*, the British representatives of the genus. Apart from the forester's idea of the oak, there are good reasons for planting some of the most distinct species about the parks and woods for enhancing the beauty of the landscape. T.S.

The following list is worthy of note—

*Q. conferta*; *Q. coccifera*, the "Kermes Oak"; *Q. heterophylla*; *Q. rubra*, the "Red Oak"; *Q. palustris*, the "Pin Oak"; *Q. Mirbeckii*; *Q. sessiliflora*, with its varieties; *Q. Suber*, the "Cork Oak"; and *Q. velutina*, the "Yellow Bark Oak," are all distinct species which would give relief to the landscape if, when a choice is being made, some of them are introduced.

**ROBINIA.** A leguminous genus of very handsome trees, being light and airy. *R. PSEUDACACIA*, the "Locust or Acacia," is a form with white flowers. Some other varieties, of which are *R. P. Decaisneana flore rubro*, *R. P. angustifolia* and *R. P. semperflorens*, afford a good display. In suburban gardens, *R. Pseudacacia* is pruned to a rounded head and grown in mop-shaped fashion.

Other good species are *R. neo-mexicana*; *R. viscosa*, the "Clammy Locust"; *R. hispida*, the "Rose acacia", and the variety *R. inermis*. T

**SALIX** (Willow). For the seaside or for land which cannot be properly drained, Willows are invaluable. They are very beautiful, and afford a good effect near a lake or stream. *S. alba cœrulea*, the true cricket-bat variety, is one of the most profitable trees grown.

The most useful species are *S. alba*, the "White Willow," and *S. babylonica*, the "Weeping Willow." The golden-stemmed variety, *S. ramulis aureis*, is very pretty in its winter state. Other species are *S. caprea*, the "Common Sallow or Goat Willow"; *S. daphnoides*, the "Violet Willow", *S. fragilis*, the "Crack Willow", and *S. nigra*, the "Black Willow." T.S.

**SOPHORA** A genus of the Order Leguminosæ, which might be more aptly included under shrubs. An exception is *Sophora japonica*, which grows upwards of forty feet high, and has fine dark green pinnate leaves, with cream-coloured flowers.

## TREES AND SHRUBS FOR GARDEN AND PARK.

*S. Korolkowii*, *S. tetraptera*, *S. macrocarpa*, *S. pachycarpa* and *S. violacea* are distinct species. *Deciduous trees.*

*S. viciifolia* is a most promising species from China, with white and violet flowers. It forms a very beautiful shrub, and can also be used with good effect planted against a wall.

**TILIA** (Lime). A useful tree, and one which grows rapidly in most places. It can



FIG. 415.—*SALIX BABYLONICA*, KING'S COLLEGE BRIDGE, CAMBRIDGE.

be trained to form an ornamental screen, as often seen in Holland, or may be pruned for a mop-headed colonnade; it is also one of the finest trees for avenues or park clumps. The flowers are very fragrant.

The most distinct species are as follows:—*T. vulgaris*, the "Common Lime"; *T. americana*, the "Basswood"; *T. argentea*, "White Lime"; and *T. platyphyllos*. **T. ULMUS** (Elm). One of the most characteristic of English trees. Elms are indifferent alike to soil and situation, and make magnificent avenues, park clumps, or single specimens.

**ULMUS CAMPESTRIS**, the "Common Elm," and *U. montana*, the "Scotch or Wych Elm," are two species which form huge trees for the park. Other species and varieties are *U. glabra* and *U. cornubiensis*, the "Cornish Elm." *U. pumila* carries its foliage into November, and is an excellent tree. In addition to the above-mentioned species and varieties, this genus provides others equally important for inclusion in an arboretum. *U. c. Wheatleyi* is excellent as a fastigate tree, and especially useful in those flat districts where the Lombardy poplar does not succeed. T.S

## HARDY CONIFERS FOR THE FORMAL GARDEN, PINETUM AND LAWN.

*Hardy  
conifers.*

No class of trees or shrubs requires more care in selection and arrangement than conifers, so much so that it is safe to state that more places are spoiled than improved by their presence. The fault generally lies with the planter, who perhaps does not recognise the effect of scale in garden design, and who, in the absence of this knowledge, relies upon the perfectly well-meaning advice of his nurseryman. The list here

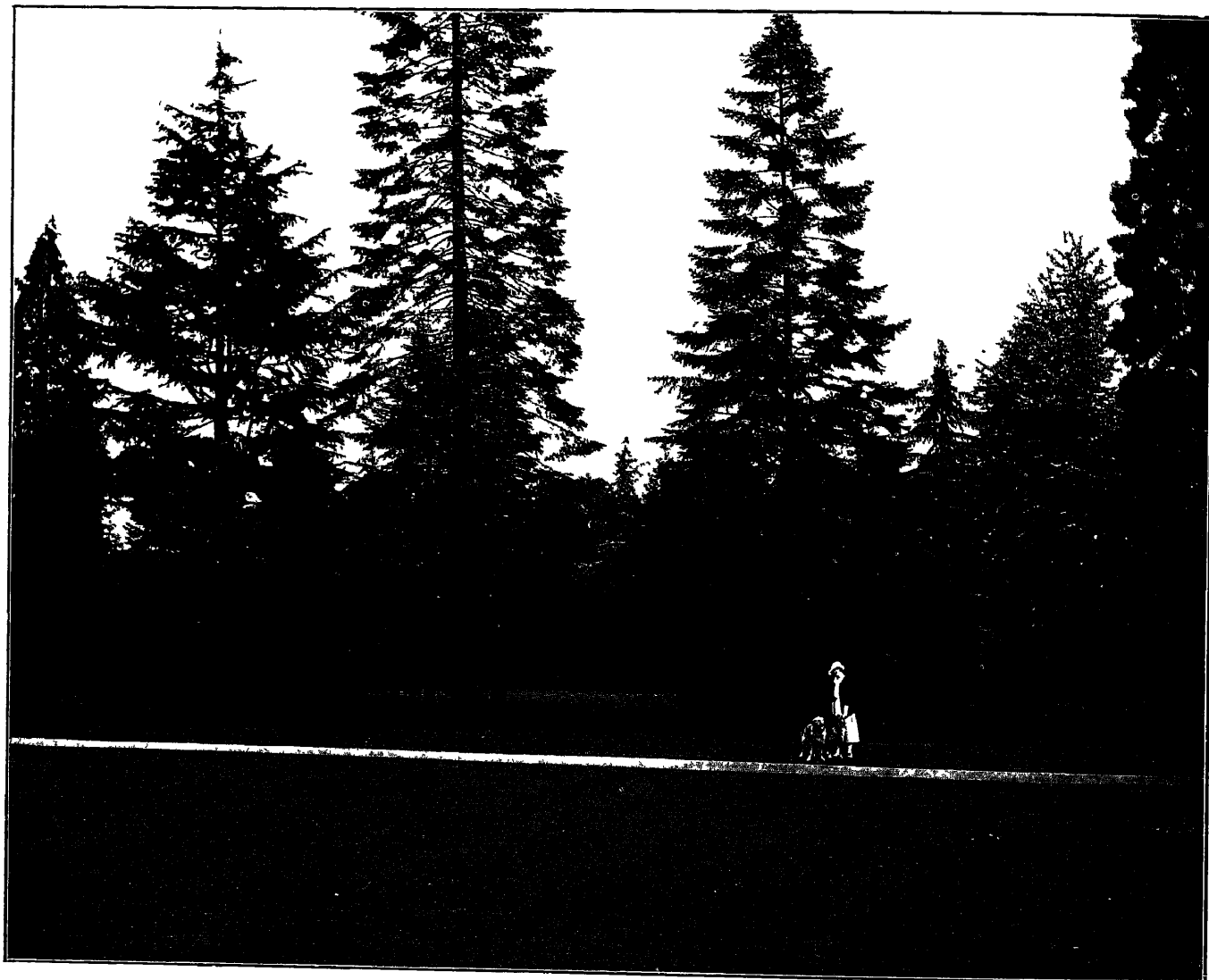


FIG 416.—CONIFERS AT WOOLEY HALL, FOR WALTER H. COTTINGHAM, ESQ.

given is one relating to the Order Coniferæ, as classed in the "Kew Hand-List of Coniferæ," and it must be borne in mind that quite a number of these subjects are named by different nurserymen without regard to authority of any description. The "Hand-List" reveals the existence of a large number of synonyms. While endeavouring to give a wide scope for the planting of conifers by making the list fairly extensive, it must be understood that exceptional precautions should be taken in their general arrangement and grouping, especially in forming gardens of a limited area. The adoption of dwarf forms for easing off the bend of a walk, or for planting on rockwork, is but one of many points to be noted in the use of conifers.

Nowhere do conifers look so much at home as in mountainous districts, especially when the houses are built of cold grey stone, or where there is a large extent of water, either in the form of a river or lake. The explanation is probably that in such districts they supply just the requisite amount of warmth of tone to the district in the winter season; and that they are generally seen against a background of hills.

**ABIES** (Silver Fir). A fine ornamental genus, which mostly produces large trees, with erect cones. The following are the most interesting—*A. brachyphylla*; *A. bracteata*, the "Santa Lucia Fir"; *A. cephalonica*, *A. cilicia*, *A. concolor*, *A. firma*, *A. lasio-*

carpa, *A. nobilis*, and *A. n. glauca*, *A. Nordmanniana*, *A. numidica*, *A. pectinata*, the "Silver Fir"; *A. Pinsapo*, *A. Webbiana*, and *A. Webbiana* var. *Pindrow*. *Conifers.*

*ARAUCARIA IMBRICATA*, the "Monkey Puzzle," should never be planted except in collections, as a curious tree.

*CEDRUS* (Cedar). *C. Libani*, the "Cedar of Lebanon," has always been in great repute with garden makers and improvers, and very properly so, as it is one of the most stately trees both in form and colour, especially when seen in conjunction with classic architecture. A single specimen at maturity is a noble tree, whilst an avenue formed of cedars is one of the most beautiful it is possible to rear. Other species and varieties are *C. atlantica*, and *C. a. glauca*; the latter with its glaucous foliage is very fine. *C. Deodara*, "The Deodar," or "Indian Cedar," forms a very interesting specimen when in good health, but is not so beautiful as *C. atlantica*.

*CEPHALOTAXUS* is a very ornamental genus for inclusion in a collection. *C. drupacea*, *Fortunei* and *pedunculata* are the most distinct forms.

*CRYPTOMERIA JAPONICA*, the "Japanese Cedar," which in Lakeland grows to an enormous size, is a useful and beautiful specimen for the pinetum. *C. elegans* is a dense growing, handsome variety of medium height, the foliage of which turns to a rich purplish-bronze in autumn.

*CUPRESSUS*. This genus includes many very handsome hardy evergreen trees, some of which can be strongly recommended for planting on terraces, for hedges, as specimens on lawns, and for boundary plantations in the gardens. *C. Lawsoniana* (syn. *Chamæcyparis Lawsoniana*), the "Lawson Cypress," may occasionally be used as a hedge plant, but it is too funereal in appearance for other purposes. The following varieties are handsome: *C. L. aurea*, *C. Allumii*, *C. erecta viridis*, *C. pendula*. *C. nootkætensis* (syn. *Thuiopsis borealis*) should be planted instead of *C. Lawsoniana*. *C. obtusa* (syn. *Retinospora obtusa*), and the large number of useful varieties, provide beautiful forms for a mixed collection. *C. pisifera*, with the varieties of *C. p. plumosa* and *C. p. filifera*, cannot be passed over, being very graceful subjects. *C. thuyoides*, the "White Cedar" (syn. *Retinospora ericoides*), has quite a number of varieties which furnish medium-sized specimens. *C. macrocarpa*, the "Monterey Cypress," is tender in some localities, but when established is very handsome. For a seaside garden, *C. macrocarpa* is one of the most useful conifers known to the writer; it grows very rapidly, can be planted as a hedge and closely clipped, or it may be treated as a close-trimmed formal tree.

*GINGKO BILOBA*, the "Maidenhair Tree," is a deciduous conifer which thrives well in towns.

*JUNIPERUS* (Juniper). A genus of useful trees and dwarf shrubs, the principal species and varieties being as follows:—*J. communis*, the "Common Juniper," with its varieties, provide good subjects for natural masses; while *J. c. hibernica*, the "Irish Juniper," is a useful shrub for planting on terraces. Other species are *J. littoralis*, *J. drupacea*, the "Syrian Juniper," and *J. sabina*, the "Savin." An interesting variety is *J. s. tamariscifolia*, the "Carpet Juniper;" while *J. chinensis* and varieties, *J. excelsa* the "Greek Juniper"; *J. recurva*, *J. thurifera*, the Spanish or "Incense Juniper"; *J. virginiana*, the "Red Cedar," with a host of varieties, make up a pleasing effect for every kind of situation, but preferably where the lawns are expanding into the wild garden or woodland.

*LARIX EUROPÆA* (Larch) is one of the best trees for plantations in hilly country, being hardy, quick growing and valuable for timber. *L. leptolepis*, the "Japanese Larch," is of later introduction, and more rapid in growth than *L. Europæa*. It is planted extensively for shelter, but is not so valuable for timber as the common variety.

*LIBOCEDRUS DECURRENS*, the "Incense Cedar," is a stately columnar tree which shows

## TREES AND SHRUBS FOR GARDEN AND PARK.

### Conifers.

to advantage if planted in a group. There are several varieties of this type. *PICEA* (Spruce Fir). This is a genus of lofty trees which are very ornamental in the park or woodland, but should not be planted on low ground in combination with other trees. The type is *P. excelsa*, the "Common Spruce," which has a large number of different varieties. Other interesting species are *P. alba*, the "White Spruce"; *P. Alcockiana*, *P. Engelmannii*, *P. Maximowiczii*, *P. Morinda*, *P. nigra*, the "Black Spruce"; *P. Omorica*, the "Servian Spruce", *P. orientalis*, *P. polita* and *P. pungens*; also the variety *P. p. glauca*, the "Blue Spruce." *Picea Sit-chensis*, the "Sitka Spruce or Menzies' Spruce," should be included for timber value.

*PINUS*, of which varieties are legion, includes some of the best known conifers, but the genus also contains a large number of species which are only interesting to lovers of the curious. The commonest and probably the most useful is *P. sylvestris*, the Scotch fir which is one of the few pines which associate well with English landscape scenery. The following are distinct — *P.*

*Bungeana*, the "Lace Bark Pine", *P. inops*, the "Scrub Pine". *P. insignis*, the "Monterey Pine," is most beautiful as a specimen on a sheltered lawn. *P. Laricio*, the "Corsican Pine", *P. austriaca*, "The Austrian Pine," another variety of *P. Laricio*, should also be included. *P. montana*, *P. Pinaster*, the "Cluster Pine," is one of the best pines for planting on the coast. It is synonymous with *P. maritima*. *P. pinea*, the "Stone Pine"; *P. excelsa*, the "Bhotan Pine," and *P. Strobus*, the "Weymouth Pine." Pines invariably look best when planted together in considerable numbers.

*PSEUDOLARIX KÆMPFERI*, the "Golden Larch," is a beautiful tree, and should be more largely planted for effect, provided there is a background of large trees or hills.

*PSEUDOTSUGA DOUGLASII*, the "Douglas Fir," is a handsome tree of very rapid growth, and valuable as timber. It will not stand strong winds.

*RETINOSPORA*. See *Cupressus*.

*SCIADOPITYS VERTICILLATA*, the "Umbrella Pine," is a somewhat rare and unique evergreen tree of slow growth, quite distinct from any other Pine, and one which should be included in every collection.

*SEQUOIA GIGANTEA*, "Wellingtonia," Mammoth Tree, and *S. sempervirens*, the "Redwood," grow to very large trees, but the positions they are to occupy ought to be chosen with great discretion, as they need plenty of space.

*TAXODIUM DISTICHUM*, the "Deciduous Cypress," grows well in swamps, or near the margin of stream or lake. It is a very interesting tree.

*TAXUS* (Yew). *T. baccata*, the "Common Yew," is of all evergreens at once the most English and the most beautiful in character; it is serviceable alike for almost every purpose, whether planted as an avenue or as a single tree, or on a lawn. It may be seen at hundreds of places; as a screen tree, as a clipped tree in the formal garden, or as a hedge, for which purpose it is better than any other plant. Other useful varieties are *T. b. adpressa*, *T. b. adpressa aurea*, one of the most effective forms which is often grafted on *T. b. fastigiata*, the "Irish Yew," the result being



FIG 417 — *CYTISUS ALBA*.

a mushroom or pyramidal head, as shown in illustration No. 388. Although often decried by writers on gardens, there is no tree of natural shape which is so useful to the garden designer as the Irish Yew and its golden variety, *T. b. fastigiata aurea*. As a line of Yews, or for marking the steps of a doorway, they are invaluable. Yews require to be placed with great discretion, as they sometimes, when improperly used, give a funereal appearance to a garden. Very effective specimens, grown in many shapes, can be obtained. They are, of course, expensive, but they give an immediate effect. There is an endless number of varieties of the type.

**THUYA.** *T. occidentalis*, the "American Arborvitæ," and its varieties are useful as formal trees or for hedges. *T. Standishii*, *T. plicata*, the "Red" or "Canoe Cedar," and *T. Lobbii* (syn. *T. gigantea*) and varieties are useful trees for planting as a screen or shelter. It is a conifer much thought of by foresters and gardeners, but one which the writer has never been able to employ with good results. From a landscape gardener's point of view it would look best when standing out of a bed of low-growing shrubs. Other forms are *T. dolabrata* (syn. *Thuyopsis dolabrata*) *T. orientalis*, the "Chinese Arborvitæ." There are endless varieties of this form, all good in their various habits. The latter form is sometimes named *Biota orientalis*.

**TSUGA.** A genus of ornamental character, the type being *T. canadensis*, the "Hemlock Spruce." Distinct species are *T. Albertiana*, *T. Brunoniana*, the "Indian Hemlock Fir"; *T. Pattoniana*, *T. Sieboldi*, the "Japanese Hemlock Spruce," and *T. Hookeriana*.

#### FLOWERING SHRUBS, DECIDUOUS AND EVERGREEN.

**AMELANCHIER.** A genus of small trees, and shrubs, bearing in spring dainty white flowers, which will thrive in any moderately rich soil. *A. canadensis*, the "June or Serviceberry," is the showiest. *A. c. oblongifolia*, the "Swamp Sugar Pear," a variety of the above, is also fine, whilst the following species grace a collection:—*A. alnifolia*, *A. asiatica*; *A. oligocarpa*; *A. utahensis* and *A. vulgaris*, the "Snowy Mespilus," with cream-coloured flowers, grow from 10 to 15 ft. high. T.S.

**ANDROMEDA.** The most recent arrangement of genera in the Order Ericaceæ only records one species, viz. *A. polifolia*, a dwarf shrub with pink flowers. There are two distinct varieties from the type, *A. p. angustifolia* and *A. p. major*. Growth is greatly encouraged if peat and leaves are worked into the soil before planting. P.

**ARBUTUS.** An Ericaceous evergreen with bell-shaped flowers, its fruit resembles a strawberry, and ripens about a year after flowering. It thrives well in a sandy or peaty compost with plenty of moisture, and near the sea. The type, *A. Unedo*, the "Strawberry Tree," grows wild in the south of Ireland, while the varieties *A. U. compacta*, *A. U. integerrima*, *A. U. microphylla*, *A. U. quercifolia* and *A. U. rubra* give quite a varied number of forms of the type. Other distinct varieties are *A. Andrachne*, *A. hybrida* and *A. Menziesii*. S.P.

**ARCTOSTAPHYLOS.** This also belongs to the Order Ericaceæ. *A. Uva-ursi*, the "Bearberry," is a little trailing form, as also is the variety *A. californica*. *A. pungens* and *A. tomentosa* "Manzanita" are interesting forms quite resembling the *Arbutus*, and are excellent for shady positions. P.

**AZALEA** See *Rhododendrons*

**BERBERIS.** This is a genus of hardy and indispensable flowering shrubs; some species are of upright growth, others are of trailing habit, while others again have gracefully arched branches bearing racemes of yellow or orange-coloured flowers in the greatest profusion. Some varieties are evergreen and some deciduous and all will thrive well



## TREES AND SHRUBS FOR GARDEN AND PARK.

### Flowering shrubs

in any ordinary soil, and may be grown by those possessing little knowledge of gardening. Amongst the newer varieties are several that should be planted for the sake of their brilliantly coloured berries in the autumn. *B. Coryii*, *B. Prattii*, *B. Subcaulialata* and *B. Wilsonæ* are perhaps the best. The following are the most useful. *B. aquifolium* (syn. *Mahonia aquifolium*) and its varieties are evergreen; *B. Darwinii*, another evergreen, one of the best, bears orange-coloured flowers excellent for massing; *B. stenophylla* is a hybrid, *B. empetrifolia*, *B. Darwinii*, its long, gracefully arched branches bearing a profusion of small yellow flowers. *B. Thunbergii* is a choice Japanese species, the foliage of which turns a bright crimson in the autumn; *B. vulgaris* is the well-known Barberry; *B. v. atropurpurea* is a purple-leaved variety; *B. Wallichiana*, an evergreen about 3 ft. high T.S.

**BUCKTHORN, SEA (URTICACEÆ).** See Hippophae.

**BROUSSONETIA PAPYRIFERA**, the "Paper Mulberry," belongs to the same Order as the Elm and may be planted in large shrubberies.

**BRYANTHUS.** A genus resembling the Heaths. They may be planted with advantage in a rockery or in rough ground where they will not be disturbed; they grow well in peat. The best known species is *B. empetrifolius*, while *B. Breweri*, *B. erecta* and *B. taxifolia* are all interesting. P.

**BUDDLEIA.** An interesting and useful genus belonging to the Order Loganiaceae. They succeed nearly everywhere and are good seaside plants, when planted inland, a position sheltered from the north and east winds is preferred. *B. globosa* is the form which has round orange flower-heads, and makes a bush 12 ft. high; *B. variabilis*, from China, has racemes of lilac-coloured flowers. *B. v. Veitchiana* is a great improvement, having very long racemes, sometimes over 2 ft. in length; the colour of which is much deeper than the type. S.

**CALLUNA VULGARIS**, the "Ling" See ERICA

**CALYCANTHUS.** A genus of handsome, hardy, deciduous and sweet-scented shrubs. *C. floridus*, the "Carolina Allspice," is a lovely sweet-scented form, *C. glaucus* has glaucous-coloured leaves; *C. occidentalis*, a Californian species, grows larger than the others, often attaining a height of 10 ft. P.

**CAMELLIA.** In sheltered, favourable situations the Camellia proves a satisfactory and handsome shrub. *C. latifolia*, red, and *C. reticulata*, pink, are two of the best, though there are now numerous varieties.

**CARAGANA.** A useful Leguminous genus with yellow flowers. *C. arborescens* is a large shrub often over 15 ft. high. The forms *C. pendula* and *C. Redowskii* are useful. *C. aurantiaca* makes a close-formed specimen, and *C. frutescens*, with its numerous varieties, are fit subjects for large shrubberies.

**CASSANDRA CALYCVLATA**, the "Leather-leaf" (syn. *Andromeda calyculata*), is a pretty shrub about 2 ft. high, useful for breaking up the flat portions of a rockery, as well as for forming a mass in front of other groups. Where possible, peat and leaf-mould should be used when planting. There are two varieties, *C. latifolia* and *C. nana*. P.

**CEANOTHUS.** See List of Climbers and Wall Plants.

**CERCIS**, comprises a genus of Leguminous shrubs and small trees. The clusters of red-dish purple flowers it bears make a very pleasing effect about the end of May.

*C. canadensis*, the "Redbud," grows upwards of 15 ft. high and forms a large bush.

**CHIMONANTHUS FRAGRANS** (syn. *Calycanthus præcox*), from China and Japan, is suitable for a wall or sheltered position facing south, the flowers are very fragrant, pale yellow in colour, and open in January. *C. f. grandiflorus* has larger and deeper-coloured flowers.

**CHIMONANTHUS VIRGINICA**, the "Fringe Tree," makes a pretty show of drooping white

## TREES AND SHRUBS FOR GARDEN AND PARK

flowers with fringed petals and attains a height of 10 to 30 ft. *C. retusus*, a handsome species with white flowers and very fragrant, is from China and Japan.

*Flowering shrubs.*

**CHOISYA TERNATA**, a beautiful evergreen shrub, bearing white sweet-scented flowers. It is very effective as a shrubby climber or when planted in peat or loamy soil in a sheltered position. Order Rutaceæ.

**CISTUS**. A genus which is suitable for situations where the soil is dry and poor. The position should face south if possible, as its growths ripen better when exposed to the sun. The different species of this genus vary in height. A list of the most interesting is as follows. *C. corbariensis*, with white flowers, 2 ft. high; *C. crispus*, purple flowers; *C. crispus* "Sunset," has deep rose flowers, 2 ft. high; *C. cyprius*, petals white with a dark spot at base, height, 4 ft.; *C. laurifolius*, a most useful form, 4 to 6 ft. high, with white flowers; *C. purpureus*, 2 ft. high; *C. ladaniferus*, is a handsome form, but as it is somewhat tender it does not thrive in all parts of the country. *C. recognitus*, 2 ft. high, makes a grand show, as also does *C. monspeliensis* and its variety *C. florentinus*, a most effective low-growing shrub, producing sheets of white flowers. The plants should be grown in pots up to the time of planting out, as they do not take well to transplanting from open ground. The best effect is obtained when they are planted in masses.

**CLERODENDRON**. Belongs to the Order Verbenaceæ, and should be more largely planted than it has been, as in August and September, when the flowers appear, there is really a scarcity of bloom amongst the hardy shrubs. *C. foetidum* (syn. *C. Bungei*), grows about 5 ft. high with quite a number of shoots, which bear terminal corymbs of lilac-rose flowers. *C. trichotomum* "Kusagi," from China and Japan, is the best hardy form, it grows to a height of 10 to 12 ft.; the flower-heads in terminal cymes of very fragrant blooms, with red calyx and white corolla, are really a fine sight: this species should be planted in groups.

**CLETHRA**. A genus of deciduous shrubs which bear racemes of white flowers, they belong to the Order Ericaceæ, and naturally need a peaty soil and the same treatment as most Ericaceous plants. *C. acuminata* grows over 10 ft. high; *alnifolia*, the "Sweet Pepper-bush," with its varieties, about 4 ft. high. P.

**COLUTEA**. An interesting genus of Leguminosæ, which flowers very freely and ripens fruits of a bladder-like shape. *C. arborescens*, the "Bladder Senna," grows to 10 ft. high. Other species are *C. cruenta* and *C. longialata*.

**CORNUS**. Ornamental shrubs and small trees, useful both when in and out of leaf, as the winter state of some forms is very striking. A few of the best species and varieties are as follows.—*C. alba* grows 5 to 10 ft. high, with white flowers and white fruits, and in the winter has deep red-coloured bark. Two good varieties are *C. a. sibirica* variegata and *C. a. Spathu*. *C. Baileyi* has red stems; *C. brachypoda* and its variety *C. b. variegata* are distinct and handsome; *C. florida*, the "Flowering Dogwood," grows over 20 ft. high; *C. mas*, "the Cornelian Cherry"; "Cornel," is a species which makes a splendid show of yellow flowers early in the year when the tree is leafless; it is a native of Europe, and is useful for a large shrubbery. *C. sanguinea*, the "Common Dogwood," and *C. stolonifera* (syn. *C. alba*), the "Red Osier Dogwood," are useful for massing in the woods or by streams or ornamental lakes. T.

**CORONILLA**. *C. emerus*, the Scorpion Senna, is a pretty shrub with yellow flowers, growing 3 to 4 ft. high.

**CORYLUS**. *C. Avellana*, the "Common Hazel," is a type of this genus of Cupuliferæ. The two varieties, *C. aurea*, with golden foliage, and *C. heterophylla*, are useful shrubbery plants, as also are *C. maxima* and the variety *C. m. atropurpurea*.

**COTONEASTER**. Hardy shrubs requiring little or no care after planting, excellent for

## TREES AND SHRUBS FOR GARDEN AND PARK.

*Flowering shrubs.*

the shrubbery, or for training against walls. The following are the best. *C. angustifolia*, an orange-berried form of recent introduction, *C. bacillaris*, a deciduous shrub

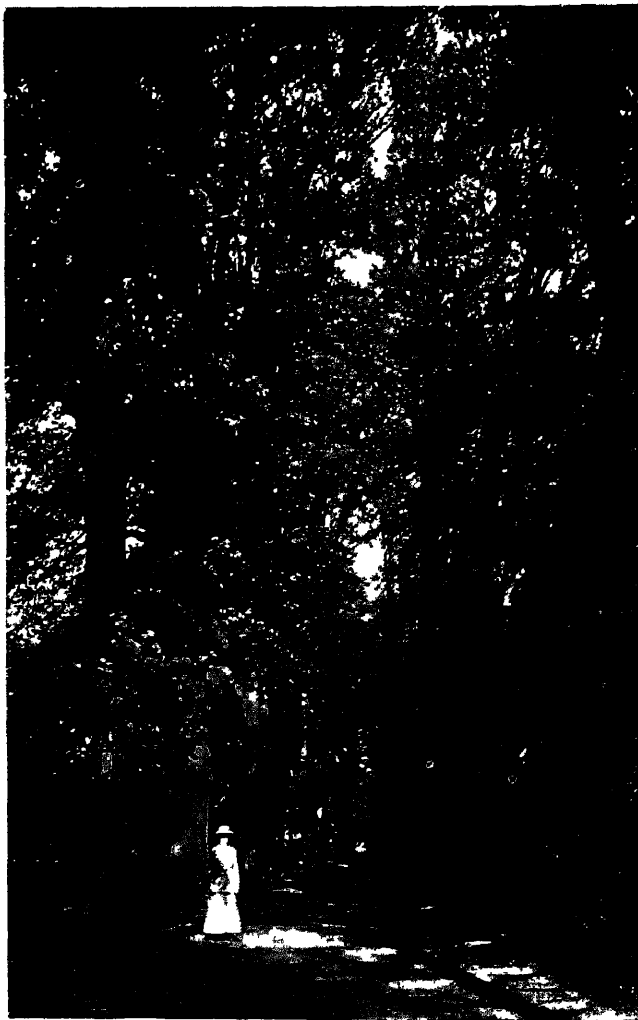


FIG 418.—QUALITIES OF FOLIAGE (VERTICAL LINE)

*C. Maulei* is a bushy species with red flowers, and *C. sinensis* is the "Chinese Quince." T.S.

**CYRILLA.** A lovely little shrub distinct in form, with racemes of white flowers, borne in a whorl round the stem. Peat should be worked into the soil when planting *C. racemiflora*, the "Leatherwood," is a useful species. P.

**CYTISUS** In the creation of garden effects there are few shrubs so useful as the "Common Broom," which seems to harmonize with any style, rough, polished,

or formal. The following is a list of the best forms of *Cytisus*: *C. albus*, the "White Spanish Broom" (Ill. No. 417); *C. a. incarnatus* is a variety tinged with

with dark purple fruits, over 15 ft. high; *C. buxifolia*, an evergreen, 6 ft. high; *C. Franchettii*, a Yunnan species. *C. frigida*, with deciduous leaves and bearing red fruits, makes a very fine effect, growing about 15 ft. high, and is most useful for forming a mass in a large shrubbery or the home park. *C. horizontalis* makes a spreading bush about 3 ft. high; *C. macrophylla* is an evergreen species with red fruits, suitable for rockery or bank, or for covering low walls; *C. multiflora* is a very pretty form, being more or less pendulous, very free flowering, and 4 to 6 ft. high; *C. rotundifolia* grows about 4 ft. high, bears red fruits, and is a very useful species. *C. Simonsi*, a sub-evergreen, has orange-coloured fruits. The above named are the best of this genus. T.S.

**CYDONIA.** *C. vulgaris*, the "Quince," is the type, while *C. japonica*, the "Japanese Quince," with red flowers, is a favourite for training against a wall; they are also excellent for covering large mounds or banks



FIG 419.—QUALITIES OF FOLIAGE (SILHOUETTE).

## TREES AND SHRUBS FOR GARDEN AND PARK.

red; *C. nigricans* grows 3 ft high; *C. præcox* grows 6 to 8 ft., the flowers being pale yellow; *C. purpureus*, a low form, 1 to 2 ft. high. *C. scoparius*, the "Common Broom," speaks for itself, while the variety *C. s. andreanus*, with the reddish-bronze petals, makes, when planted in masses, a fine effect. To be recommended are *s. Andreanus*, Daisy Hill, Firefly, and Moonlight. *C. Dallimorii* is a beautiful hybrid with rosy mauve flowers, and *Cytisus Carbierni* is a late blooming variety with pale yellow flowers. T.S. There are many dwarf and prostrate growing varieties suitable for rockwork.

*Flowering shrubs.*

**DABŒCIA POLIFOLIA**, the "St Dabœc's Heath," and often called *Menziesia*, grows 1 to 2 ft. high, belongs to the Order *Ericaceæ*, and is excellent for masses in a rockery or rough ground. The varieties, *D. alba* and *D. bicolor* are useful.

**DAPHNE.** *D. Mezereum*, the "Mezereon," with red flowers, and the varieties *D. M. grandiflorum* and *D. M. album*, flower early in spring, and are very fragrant. The following species are also very interesting: *D. Blagayana*, with white flowers. *D. Cneorum*, the "Garland Flower," and the variety *D. C.*



FIG. 420.—QUALITIES OF FOLIAGE (MASS).

*major*, grows about 1 ft. high. *D. laureola*, the "Spurge Laurel," grows about 3 ft. high, and has evergreen leaves. This makes a capital undergrowth. P.

**DEUTZIA.** Very beautiful deciduous flowering shrubs. The following is a list of the best. *D. corymbosa*, with white flowers, grows about 4 ft. high; *D. crenata* grows 8 ft. high, *D. gracilis*



FIG. 421.—QUALITIES OF FOLIAGE (LIGHT AND SHADE)

and its varieties are very good; *D. Lemounei* is a hybrid between *D. gracilis* and *D. parviflora*. Recent varieties of *Deutzia* include *Pride of Rochester*, and *D. Veitchii*, both with rose pink flowers. All the species flower during May and June. T.

## TREES AND SHRUBS FOR GARDEN AND PARK

### Flowering shrubs.

**DIERVILLA** (syn. *Weigela*). Handsome flowering shrubs well deserving more extended cultivation. They thrive in any ordinary garden soil, are very profuse bloomers and have a graceful spreading habit; with their long racemes of bell-shaped flowers in spring and gorgeous foliage in autumn, they are always pleasing. *D. floribunda* and *D. grandiflora* have given us *D. hybrida*, which comprises quite a number of excellent forms of which the following are most beautiful: *Abel Carrière*, *Eva Rathke*, *D. rosea*, *D. candida*, and *D. amabilis*. T.S.

**ELÆAGNUS**. This is a most useful genus, as it comprises both deciduous and evergreen shrubs. The most useful forms are *E. argentea*, the "Silver Berry," which grows over 8 ft. high; *E. glabra* and *E. g. variegata*, *E. macrophylla*, the "Fon Gumi"; *E. multiflora*, and *E. pungens*, "Natsu Gum," which has provided quite a number of very fine coloured varieties. *E. p. aurea*, *E. p. aureo-picta*, *E. p. Simonsii*, *E. p. S. aureo-variegata*, *E. p. tricolor*, and *E. p. variegata* are all worthy of places in large shrubberies. T.

**EMBOTHRIUM**. *E. coccineum* is a striking plant with brilliant honeysuckle-like flowers. It is not hardy except in sheltered positions near the coast.

**ENKIANTHUS**. A beautiful hardy shrub with dull red bell-shaped flowers in spring. The foliage turns a brilliant colour in autumn. *E. campanulatus* and *E. japonicus* are the two best varieties.

**ERICA** (syn. *Heath*). A genus of pretty shrubby plants, very effective when grown in masses on the rockery or as edgings to shrubberies. On the outskirts of pleasure grounds there are often odd corners and scraps of ground where the soil is too poor for most shrubs, and in such positions, heaths are most valuable. Another interesting feature is that the species and varieties now in cultivation provide a continual Ericaceous display of bloom throughout the year. *E. arborea* has white flowers, *E. australis*, with purple-red flowers, borne in March and April, grows from 4 to 6 ft. high; *E. carnea* and *E. c. alba* flower from February to April, and grow six inches high; *E. ciliaris* and the variety *E. c. Maweanæ* flower about August. *E. cinerea*, with its numerous varieties, blooms throughout the summer; the colours are very fine in these forms. *E. mediterranea* flowers from March to May, and grows about 4 ft. high; but the best variety is *E. m. hybrida*, which flowers from December to the end of April, and grows 1 foot high; while *E. multiflora*, *E. stricta*, *E. tetralix*, the "Cross-leaved Heath," and *E. vagans*, the "Cornish Heath," make a good display. Other worthy varieties of *Erica* are *E. cinerea*, *E. c. coccinea*, *E. c. purpurea*, *E. codonoides Vertchu*, *E. vulgaris alba*, *E. v. Alportii*; *E. v. Serlei*; *E. v. Hammondii*, *E. v. flore pleno*, and *E. v. aurea*. All the forms of *Calluna* are worth planting on high or rough ground.

**ESCALLONIA**. See CLIMBERS.

**EUCRYPTIA PINNATIFOLIA**, a native of Chili, is one of the finest shrubs grown, but requires a sheltered position; height, 10 to 15 feet.

**EUONYMUS**. A genus containing both evergreen and deciduous shrubs and small trees. The following list is worth growing: *E. europæus*, the "Spindle Tree," is valuable for its display of red and yellow fruits; *E. americanus* is the "Strawberry Bush"; *E. japonicus*, with its numerous evergreen, variegated and golden forms, proves useful for shrubberies. T.

**EXOCHORDA**. A very beautiful shrub of compact growth, bearing white flowers in May; it grows about 6 ft. high. *E. Albertii* and *E. grandiflora* are the two types. T.

**FUCHSIA**. An excellent summer and autumn flowering shrub, thriving particularly well near the sea. *F. gracilis* and *F. Riccartonii* are the best.

**FORSYTHIA**. Ornamental shrubs which bear showy yellow flowers in February and March. *F. suspensa* thrives well as a climber or grown as a bush. When the flowering

## TREES AND SHRUBS FOR GARDEN AND PARK.

season is over, if the growths are cut back a fresh lot of shoots will spring up, to be covered the following year with masses of flowers. *F. viridissima* and *F. intermedia* are both good forms. T S. *Flowering shrubs.*

*GAULTHERIA PROCUMBENS*, the "Creeping Winter-green," is a pretty creeping shrub with

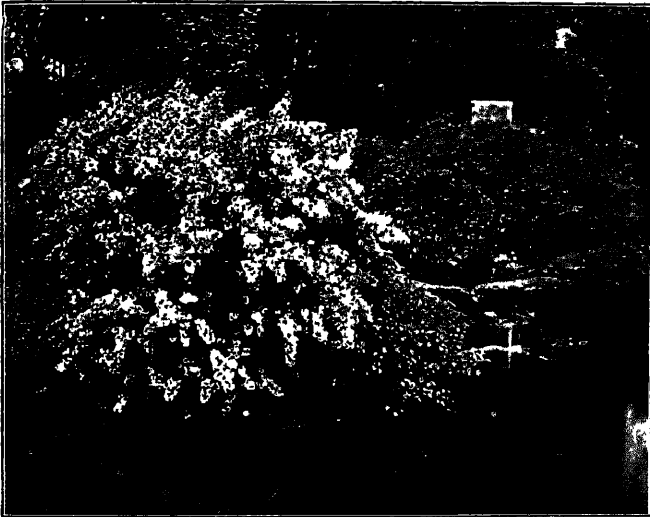


FIG. 422.—DOUBLE GORSE BESIDE A POOL.



FIG. 423.—*PRUNUS SPINOSA*.

white wax-like flowers and red berries. *G. Shallon* thrives well in the shade of trees. Both species may be used on the rockery. U.P.

**GENISTA.** This genus is closely allied to *Cytisus*, and belongs to Order Leguminosæ. The following species are the best: *G. ætnensis*, grows over 15 ft. high, with pendulous habit, and bears yellow flowers; *G. cinerea*, 8 to 10 ft. high, blooms in June, and is a very fine plant; *G. hispanica*, the "Spanish Gorse," flowers in June, and grows 2 ft. high; *G. pilosa*, 2 ft. high; *G. tinctoria*, "Dyer's Greenweed," and its double form, growing about 18 inches high, are two especially pretty plants; *G. virgata* grows upwards of 15 ft. high, and is excellent for planting in the park in the shade of other trees. T.

**HALESIA TETRAPTERA**, the "Snowdrop or Silver-bell Tree," has racemes of white flowers. Other species are *H. corymbosa*; *H. diptera*; *H. hispida*, "Asagara"; and *H. parviflora*; all very interesting shrubs. T.

**HAMAMELIS.** This genus is one of the prettiest and most useful of shrubs. Though it has been neglected by planters up to the present, it is hoped that those who are practically acquainted with its value, at a season of the year when few or no flowers are in evidence, will do their best to introduce it in quantity. The following are all worthy of a place; *H. arborea*, the "Mansak" (from Japan, flowers in January), *H. japonica*, *H. j. Zuccariniana*, *H. mollis*, and *H. virginica*, the "Witch Hazel." T.

**HEATH.** See *ERICA*.

**HEDYSARUM MULTIJUGUM**, with purple flowers, is a dwarf shrub belonging to the Order Leguminosæ.

**HIBISCUS SYRIACUS**, forms a desirable class of deciduous flowering shrubs with malva-like flowers. Although perfectly hardy in the midland, southern and western counties, and in gardens situated near the coast, they are not always reliable in Scotland or the North of England.

**HIPPOPHAE RHAMNOIDES**, the "Sea Buckthorn," is a hardy deciduous shrub or small tree; when trained as the latter, and covered with fine bright, orange-coloured fruits, it is a very beautiful sight. It is most useful for the seaside, as it forms a good wind screen for protecting other plants. It should be noted that both male and female plants must be planted. S.

**HYDRANGEA PANICULATA**, is a very useful subject for a mass; *H. p. grandiflora* is a



FIG 424 —THE AZALEA GARDEN IN MAY



FIG. 425 —MAGNOLIA STELLATA SEEN AGAINST BACKGROUND OF LEAFLESS TREES.

## TREES AND SHRUBS FOR GARDEN AND PARK.

- larger-flowered form than the type. In the south and near the coast *H. hortensis* makes a beautiful shrub, with masses of pink and blue flowers. T. *Flowering shrubs.*
- HYPERICUM.** Very serviceable shrubs of varied types; some forms grow 5 ft. high, while others attain only 1 foot. *H. Androsæmum*, "Tutsan," grows 2 to 3 ft. high. The species *H. calycinum* (the Rose of Sharon), *H. Moserianum*, *H. Hookerianum*, and *H. patulum* are the most useful. T.
- KALMIA.** A genus of Ericaceæ commendable for their very beautiful flowers, combined with evergreen foliage. *K. angustifolia* the "Sheep Laurel"; *K. glauca*; and *K. latifolia*, the "Calico-Bush," are noteworthy species. Peat should be added when planting. P.
- KERRIA JAPONICA**, a pretty cottage shrub with slender branches, bearing yellow flowers in great profusion. It is useful for nearly any situation; the varieties are also good.
- LAURUSTINUS.** See *Viburnum*.
- LEDUM LATIFOLIUM** belongs to the Order Ericaceæ, and requires similar treatment to others of the same Order. *L. palustre* and *L. p. dilatatum* are both worth growing. *L. palustre* is an excellent bog plant.
- LEYCESTERIA FORMOSA** is a handsome shrub of distinct appearance; it has white flowers with purple bracts, and will grow well in nearly all soils.
- LIGUSTRUM** (Privet) *L. ovalifolium*, the oval-leaved privet makes useful town hedges and *L. o. aureum*, the golden form, is an attractive shrub, particularly for town gardens. *L. japonicum macrophyllum* is a handsome tall growing variety, with trusses of white lilac-like flowers in autumn.
- LILAC.** See *SYRINGA*.
- LIQUIDAMBAR.** *L. styraciflora* should be grown for its foliage which turns a brilliant colour in the autumn.
- LONICERA.** *L. Nitida* is a good evergreen from China with small glossy green leaves and clips well into hedge form.
- MAGNOLIA** is one of the most ornamental and attractive flowering trees or shrubs known, but is not quite hardy as a bush in the north. *M. conspicua* (syn. *M. Yulan*) is a handsome deciduous species of erect growth, its numerous large white flowers being very conspicuous and delightfully fragrant. *M. Soulangeana* is perhaps better than its parents (*M. conspicua* x *M. obovata*); it is of similar habit, but the flowers are shaded purple. The striking effect of the flowers, relieved against the bare deciduous branches and the wall of a house, can only be judged by those who have seen them. The following are good and interesting species: *M. acuminata*, the "Cucumber Tree"; *M. grandiflora*, *M. Lennei*, *M. macrophylla*, *M. parviflora*, *M. stellata*, and *M. Watsoni*.
- OLEARIA HAASTII** is a most useful evergreen flowering shrub, excellent for the seaside. *O. macrodonta* is a good town shrub. *O. Gunniana* is a pretty compact small shrub with grey leaves and masses of daisy-like white flowers. *O. nitida* has large trusses of daisy-like flowers.
- OSMANTHUS.** An evergreen shrub effective in the border, and somewhat resembling a holly, it has prickly foliage and bears small fragrant white flowers. The most distinct varieties of *O. Aquifolium* are *O. A. ilicifolius*, *O. A. latifolius*, *O. A. purpureus*, *O. A. variegatus*, and *O. A. rotundifolius*, but *O. Aquifolium* is the most satisfactory. T S.
- PACHYSANDRA.** *P. terminalis* and *P. t. variegata* are two good low growing evergreens for shady positions with small fragrant flowers in March.
- PERNETTYA MUCRONATA** grows 2 to 3 ft. high, and when planted in groups soon makes a dense mass of growth. The fruits are very showy, there are red, white, and pink forms. They are superb for winter effect, and are easily grown in almost any soil or situation.





FIG. 426.



FIG 427 —UPPER AND LOWER PART OF SHRUBBERY WALK, BIDSTON PRIORY,  
FOR JOSEPH BIBBY, ESQ.

## TREES AND SHRUBS FOR GARDEN AND PARK.

**PHILADELPHUS.** These ornamental and deciduous shrubs are welcomed by lovers of old-fashioned flowers, and are not only hardy, but succeed in any kind of soil or atmosphere. The best form is *P. coronarius*, the "Mock Orange," commonly but wrongly known as "*Syringa*," and grows about 9 ft. high. There are other varieties of the type. *P. grandiflorus*, with the varieties *P. g. floribundus* and *laxus*, are good sorts which grow about 15 ft. high. *P. Lemoinei*, a hybrid (*P. microphyllus* x *P. coronarius*), is a very good type about 3 ft. high; the variety *P. erectus* is also an improvement. Amongst the double varieties should be included *P. Virginal*; *P. Bouquet blanc*, *P. Boule d'argent*. T.S.

*Flowering shrubs.*

**PIERIS**, a genus of the Order Ericaceæ allied to *Andromeda*, which needs similar positions and treatment. The species are *P. floribunda*, *P. japonica*, *P. mariana*, "Stagger Bush," and *P. nitida*. P.

**POTENTILLA FRUTICOSA** is a pretty shrub 2 to 4 ft. high, and bears numerous small yellow flowers

**PTELEA TRIFOLIATA**, the "Hop Tree," is an interesting tree or large shrub; it bears fruits which resemble hops, and are very conspicuous; there are several varieties of the type.

**RHODODENDRONS.** The hybrids of some of the hardy species are generally admitted to be the showiest of hardy shrubs. They are exceedingly striking when planted in groups and masses in the woodlands bounding the gardens, embracing as they do every shade of colour from the purest white to the richest crimson and purple, the colours of some varieties being simply gorgeous. The effectiveness of masses of *Rhododendrons* is often lost by the indiscriminate mixing of varieties; much better results can be obtained by planting groups of six or eight together, and confining the mass to, say, as many varieties, carefully arranging the colours. Although peat-loving plants, they succeed admirably on any good loam, provided that it does not rest on limestone or chalk. The hybrid varieties are numberless, and it is a difficult matter to select a few of the best without feeling that there are many other good forms which ought to be included. The following will be found excellent:—

<b>RHODODENDRON ALARM</b> , centre white deeply tinged with scarlet.	<b>RHODODENDRON HELEN WATERER</b> , pure white with crimson margin
„ <b>ALBUM GRANDIFLORUM</b> , blush	„ <b>JACKSONII</b> , red, early
„ <b>ALICE</b> , pink.	„ <b>JOHN WATERER</b> , dark crimson.
„ <b>ASCOT BRILLIANT</b> , splendid red	„ <b>JOHN WALTER</b> , dark crimson.
„ <b>ATROSANGUINEUM</b> , blood red	„ <b>LADY ELINOR CATHCART</b> , light rose with chocolate spots
„ <b>B DE BRUIN</b> , deep brilliant red.	„ <b>LORD ROBERTS</b> , rosy scarlet.
„ <b>BLANDYANUM</b> , rosy crimson	„ <b>LUDWIG LEOPOLD LIEBIG</b> , bright cherry red
„ <b>BOULE DE NEIGE</b> , an early white variety	„ <b>MICHAEL WATERER</b> , crimson spotted
„ <b>CARACTACUS</b> , rich purple crimson, good truss.	„ <b>MADAME CARVALHO</b> , pure white, fine truss
„ <b>CAUCASICUM ALBUM</b> white, fine foliage early	„ <b>MADAME S. MOSER</b> , double red.
„ <b>C. PICTUM</b> , pink, early.	„ <b>MRS E. C STIRLING</b> , blush pink
„ <b>CHEVALIER FELIX DE SAUVAGE</b> , deep rose pink with dark blotches.	„ <b>MRS. JOHN CLUTTON</b> , the best hardy white
„ <b>CHRISTMAS CHEER</b> , deep pink, early	„ <b>MRS JOHN WATERER</b> , rosy crimson.
„ <b>CUNNINGHAM'S WHITE</b> , most useful for general planting, early	„ <b>MRS HOLFORD</b> , rich salmon, large truss
„ <b>CYNTHIA</b> , large truss, pink.	„ <b>NERO</b> , dark rosy purple, finely spotted
„ <b>DONCASTER</b> , red	„ <b>NOBLEANUM</b> , red, the earliest flowering variety
„ <b>EVERESTIANUM</b> , rosy lilac, spotted and fringed, an excellent bloomer, fine foliage.	„ <b>OLD PORT</b> , deep purple.
„ <b>FASTUOSUM FL PL.</b> , double mauve.	„ <b>PINK PEARL</b> , bears very freely, immense heads of beautiful pink wax-like flowers, should be in every collection
„ <b>FREDERICK WATERER</b> , fiery crimson, very fine.	„ <b>PRINCESS JULIANA</b> , pink.
„ <b>IAGO</b> , rosy carmine, early.	

## TREES AND SHRUBS FOR GARDEN AND PARK.

<i>Flowering shrubs.</i>	RHODODENDRON	PURITY, white with yellow eye	RHODODENDRON	THE WARRIOR, rosy scarlet
	"	SAPPHO, white with dark blotch	"	VAUBAN, mauve with yellow blotch.
	"	SIR HENRY HAVELOCK, red.	"	WHITE PEARL, excellent white
	"	SIR ISAAC NEWTON, plum colour	"	WILLIAM DOWNING, dark puce-
	"	STELLA, pale rose with chocolate blotch	"	coloured
	"	THE STRATEGIST, pink, good truss	"	WILLIAM AUSTIN, deep red
	"	THE QUEEN, blush changing to white		

There is a host of useful dwarf evergreen species which make a most handsome display when in flower; some may be used to advantage on the rockery or for massing in the shrubbery border. It will be sufficient to mention the most important. *R. racemosum* is a Chinese dwarf Rhododendron, growing about 2 ft. high, with a mass of shoots springing from the base which bear beautiful pink flowers; it is a plant deserving extended cultivation. *R. rubiginosum*, from Yunnan, grows 2 to 3 ft. high. *R. præcox*, *R. yunnanense*; *R. lepidotum*, from the Alpine Himalaya, and *R. ferrugineum*, from the Alps of Europe, with its varieties, are very useful for the rockery. *R. Wilsoni* and *R. arbutifolium* are of garden origin. The few mentioned by no means exhaust the species which are valuable for planting, as there is quite a large collection of species alone. There is, besides the evergreen, the deciduous section of Rhododendrons, which is familiarly known as the Azalea, and which gives one of the finest displays of the season. It will be sufficient to give the species alone, for it is well known that it is from these so many of the fine hybrids have been produced.—*R. calendulaceum*, *R. flavum*, *R. nudiflorum*, *R. odoratum*, *R. rhombicum*, *R. sinense* (syn. *Azalea mollis*), *R. Vaseyi* and *R. viscosum*, the "Swamp Honeysuckle." There are several good varieties of Japanese Azaleas now on the market, such as.—

A	AMOENA, crimson	A	ROSEAFLORE, double salmon pink
A	HINODEGIRI, bright crimson	A	HINEMAYO, crimson
A.	YODOGAWA, double rosy lilac	A	LEDIFOLIA MAXWELLI, scarlet

In all nurseries of repute a large quantity of good hybrids are offered under names adopted by the trade. T.P.

**RHODORA.** *R. canadensis* is a deciduous shrub from N. America with a quantity of rosy-purple flowers in spring.

**RHUS.** This genus is comprised of small deciduous trees and shrubs. It is a very useful subject for rough shrubberies. The most prominent forms are *R. cotinoides*, the "Chittim Wood"; *R. Cotinus*, the "Venetian Sumach"; *R. glabra*, the "Smooth Sumach"; and *R. Osbeckii*. T.

**RIBES** (Flowering Currants). These old-fashioned garden shrubs are general favourites, with their profusion of bright flowers so welcome in the early Spring. They grow readily in most soils. *R. aureum*, the "Buffalo or Missouri Currant" (with yellow flowers), *R. cerum* (white flowers), *Gordonianum* (a hybrid, *sanguineum* x *aureum*), *R. sanguineum*, the "Flowering Currant," and its varieties are all handsome. *R. speciosum* (syn. *R. fuchsoides*), with red flowers resembling a fuchsia, is a very pretty form. T.S.

**SAMBUCUS** (Elder). Suitable shrubs for large masses of foliage in shrubberies. The best species and varieties are *S. canadensis*; *S. nigra*, the "Common Elder," with its varieties, *S. racemosa*, the "Red-berried Elder"; while *S. r. laciniata*, a cut-leaved form, and *S. r. plumosa aurea*, a splendid golden variety, are the most serviceable.

**SARCOCOCCA.** *S. ruscifolia* is a good small growing evergreen for shady positions, with small white fragrant flowers.

**SENECIO.** *S. Grayii* is a useful spreading bush for fronting shrubberies. It has grey foliage and yellow flowers and benefits from hard pruning.

**SKIMMIA.** Dwarf evergreen shrubs having thick, fleshy foliage, and bearing heads of white flowers in the Spring and red berries in the autumn. The chief species are *S. Fortunei*, *S. japonica*, and *S. laureola*. T.S.

**SNOWBERRY.** See **SYMPHORICARPUS**.

## TREES AND SHRUBS FOR GARDEN AND PARK.

**SPARTIUM JUNCEUM**, the "Yellow Spanish Broom," belongs to the Order Leguminosæ. *Flowering shrubs.* It should be more largely planted than at present, as it gives a fine display of yellow flowers. T.

**SPIRÆA** A large genus comprising many shrubby species. The most useful are *S. Aitchisonii*, *S. arguta*, *S. bracteata*, *S. bullata*, *S. discolor*, *S. Douglasii*, *S. japonica* and its varieties, especially *S. j.* "Anthony Waterer." Other forms are *S. prunifolia*, *S. Lindleyana* and *S. Thunbergi*. T S.

**STAPHYLEA** A small genus with deciduous shrubs bearing white flowers. The most interesting are: *S. colchica*, *S. pinnata*, the "Bladder-nut"; *S. Coulombieri*, and *S. trifolia*, the "American Bladder-nut." U.

**STRANSVAESIA**. *S. undulata* is an evergreen from China, with brilliant foliage in the autumn and bright red berries.

**SYMPHORICARPUS**. A genus distinct owing to the fine display of white berries in the autumn. *S. racemosus*, the "Snowberry," is the type; *S. vulgaris* is the "Indian Currant," or "Coral-berry." U.T.S.

**SYRINGA** (Lilac). Shrubs of this genus deserve a place in every garden, not as is usual, merely for the sake of variety, but arranged in masses in borders devoted entirely to them, they are useful planted as a screen, either in the shape of a thick hedge or border. It will be interesting to note some of the species and hybrids. *S. chinensis*, the "Rouen Lilac," *S. Emodii* and its varieties, *S. japonica*, *S. persica*, the "Persian Lilac," with its varieties *S. p. alba* and *S. p. laciniata*; while *S. vulgaris*, the "Common Lilac," recommends itself. A list of hybrid select forms are: *S. alba*, a *grandiflora*, Charles X, La Ville de Troyes, Mme. Lemoine, Marie Legraye, President Grevy, Souvenir de L. Spath, Lemoinei, Leon Simon and Michael Buchner. T.S.U.

**TAMARIX**. An excellent seaside shrub. *T. anglica*, the "Tamarisk," with pink flowers, *T. chinensis*, *T. gallica*, *T. hispida*, *T. Pallasii* and its lovely variety *T. P. rosea*, are the best forms. T S.

**ULEX EUROPÆUS**, the common "Furze, Gorse or Whin," as it is variously styled in different districts. The variety *U. e. flore-pleno* is of double form. *U. nanus* and *U. Gallii* are interesting; the latter has masses of flowers late in the season T S.

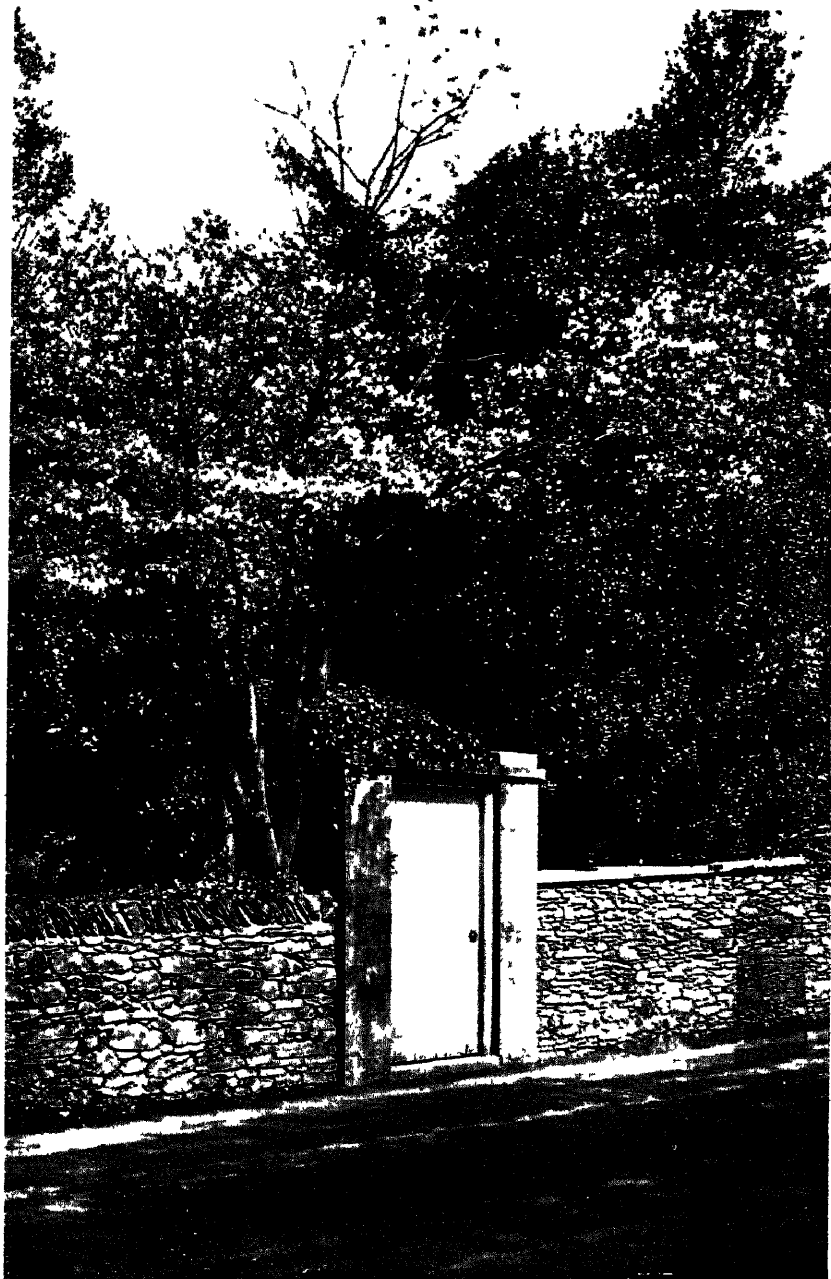


FIG 428 — SNOWY MESPILUS AGAINST A BACKGROUND OF HOLLY.

## TREES AND SHRUBS FOR GARDEN AND PARK.

### Flowering shrubs.

VERONICA. This genus has many useful shrubs, especially for seaside gardens. The best forms both for beauty of flower and foliage, are *V. Andersonii*, *V. anomala*, *V. angustifolia*, *V. buxifolia* and *V. Traversii* S.

VIBURNUM. Most interesting and useful shrubs, very effective for the shrubbery. *V. Opulus*, the "Guelder Rose," with *V. O. sterile*, the "Snowball Tree," are the best known; while *V. acerifolium*, "Dockmackie"; *V. Lantana*, the "Wayfaring Tree"; *V. lentago*, the "Sheep-berry"; *V. Tinus*, the "Laurustinus", *V. plicatum* and *V. tomentosum*, with its varieties, are very interesting. A very promising species named *V. Carlesii*, which is very sweet-scented, deserves to have a sheltered position. Include *V. rhytidophyllum*, a variety from Japan, with long, handsome evergreen leaves and bright red berries in autumn. *V. fragrans*, new and scarce, with beautiful and very fragrant flowers, early in the year. T.S.

WEIGELA. See DIERVILLA.

XANTHOCERAS SORBIFOLIA, a large deciduous shrub, bearing racemes of white flowers with a blotch at the base of the petal. It is worth growing, as it is a very handsome shrub.

ZENOBIJA. An Ericaceous shrub growing some 2½ ft. high. It is very pretty when planted in a mass, it bears white flowers in June. The varieties *Z. pulverulenta* and *Z. quercifolia* are good forms.

## EVERGREEN SHRUBS.

### Evergreen shrubs.

In addition to the foregoing, there are certain evergreen shrubs, grown entirely for their foliage. There is not a great number of forms, but as a class they are amongst the most valuable material which the garden maker has at his disposal. For the most part they are extremely hardy and suitable both for town and seaside gardens.

AUCUBA. An evergreen largely used in town gardens, but often planted to the exclusion of choice shrubs. There are two species, *A. japonica*, with a host of varieties, and *A. himalaica* from the Eastern Himalaya.

BUXUS SEMPERVIRENS, the common Box, is valuable as a town plant, as undergrowth or for shady borders; also for the formation of hedges or as single specimens for clipping or otherwise. The best varieties are the Handsworth box, a bright shiny greyish-green variety, which has somewhat larger leaves than the ordinary one, and a new broad-leaved variety, called *B. s. latifolia nova*, which is darker in colour than the preceding. Another very useful variety is *B. s. myrtifolia*, while quite a large number of varieties of *B. sempervirens* are offered by nurserymen. The "Edging Box" is *B. s. suffruticosa*. T.S.

EUONYMUS, a class of shrubs which is indispensable for planting in seaside or town gardens. In London there are few if any shrubs which succeed so well, whilst the number of diverse varieties almost make it possible to make an effective plantation by their use alone. *E. japonicus* is the evergreen type. It is not necessary to name any of the varieties, as they are all good and effective. *E. radicans* and its varieties should be used for low carpet shrubberies or as a border. S.T.

GRISELINIA. *G. littoralis* is a very handsome evergreen with bright green leaves, and is a good plant for the seaside.

ILEX (Holly). Hollies are of all evergreen shrubs the most reliable. Their extreme hardness in all sorts of positions, their power to withstand smoke and chemicals, and the fact that, whilst preferring a moderately heavy loam, they succeed on almost any soil, growing in shade or sun, coupled with their power to withstand strong draughts and biting winds, gives them a unique position among evergreen shrubs. Moreover, hollies are interesting from the fact that they are truly British, most of the varieties having sprung from the common *Ilex Aquifolium*. From the numerous

## TREES AND SHRUBS FOR GARDEN AND PARK.

varieties now grown only a few are selected, but this list will be found quite long enough for practical purposes. Taking the green varieties first, the following are all good. S.T.U. *Evergreen shrubs.*

- |   |   |
|---|---|
| <p><b>ILEX AQUIFOLIUM</b>, The "Common Holly," invaluable for hedges</p> <p>„ <b>A. BALEARICA</b></p> <p>„ <b>A. CONTORTA</b> (Corkscrew Holly) This variety is of moderate growth and compact.</p> <p>„ <b>A. DONINGTONENSIS</b> An excellent variety for withstanding the smoke of towns</p> <p>„ <b>DAHOON OR I A SCOTICA</b>. A very hardy smooth-leaved variety</p> <p>„ <b>A. FEROX</b> (Hedgehog Holly), a dwarf variety with very prickly leaves The plant is of very compact habit, more inclined to make a spreading than an upright bush.</p> <p>„ <b>A. HODGINSII</b> Probably the best of the broad-leaved varieties, and one which is a great favourite with all town gardeners It is a sturdy grower and makes a very handsome shrub</p> | <p><b>ILEX A. FRUCTU-LUTEO</b>, yellow berried. This variety has the attraction of bearing its beautiful yellow berries on very young plants, but apart from this it is an excellent green holly.</p> <p>„ <b>A. LAURIFOLIA</b>. Of all the green hollies this is the handsomest, its fine dark glossy leaves giving it a massiveness which renders it a very desirable subject for the back of the shrubbery borders</p> <p>„ <b>MADERIENSIS</b> Bears handsome red berries on young plants</p> <p>„ <b>MINORCA</b>, syn. <i>balearica</i> A small-leaved variety, excellent for borders.</p> <p>„ <b>MYRTIFOLIA</b>, Myrtle-leaved. Also a small-leaved variety the stems of this holly add much to its effectiveness.</p> <p>„ <b>PLATYPHYLLA</b>. A variety introduced from the Canary Islands.</p> |
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The following are gold and silver variegated varieties —

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| <p><b>ILEX AQUIFOLIUM ARGENTEA MEDIO-PICTA</b>, "Silver Milkmaid," a great favourite.</p> <p>„ <b>A. ARGENTEA REGINA</b> "Silver Queen," the best of the silver Hollies</p> <p>„ <b>A. ARGENTEA MARGINATA</b></p> <p>„ <b>A. AUREA REGINA</b>, "Golden Queen" This may be regarded as the finest of all the variegated Hollies, and makes a splendid tree, as the leaves are large and of a beautiful golden colour.</p> | <p><b>ILEX A. AUREA PENDULA</b>, "Waterer's Gold Weeping"</p> <p>„ <b>A. FLAVESCENS</b>, "Moonlight."</p> <p>„ <b>A. FEROX ARGENTEA</b>, "Silver Hedgehog Holly"</p> <p>„ <b>A. HANDSWORTHIENSIS</b>, "Handsworth New Silver"</p> <p>„ <b>A. LATIFOLIA AUREA-MARGINATA</b></p> <p>„ <b>A. WATERIANA</b>.</p> |
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**LAURUSTINUS** See *Viburnum tinus* under flowering shrubs.

**LAVANDULA** (or Lavender). No garden which seeks the beauty of homeliness can dispense with the beautiful grey-leaved bushes of Lavender and its becoming associate Rosemary, which give out their sweet odours when rubbed, and have the added charm of their blue-grey flowers. They are quite acquisitions for hot, sandy soils, and are proof against prolonged droughts. Lavender looks best in long hedges or masses, and is best propagated by early summer cuttings. After the third or fourth year of growth the bushes deteriorate and need replanting.

**PRUNUS LAUROCERASUS** (syn. *Cerasus Laurocerasus*), the "Laurel," is so wellknown as to require little notice here. So many gardens seem to be planted entirely with them, that a word of caution is necessary, for, owing to their vigorous growth, they will oust the more beautiful but slower-growing shrubs, unless kept steadily within bounds. Laurels should generally be considered as nursers, planted to furnish the beds and give protection to other shrubs until they are sufficiently established to take care of themselves, when they may be lifted and used elsewhere as undergrowths, for which purpose they are invaluable. They may also be planted permanently in places where a quick-growing screen is required, or for furnishing a steep bank with foliage instead of grass. Laurel hedges are not, as a rule, a great success, as in a few years they become ragged and woody at the bottom. The best form for this purpose is *P. L. caucasica*, which, if kept low and trimmed with a knife instead of with shears, makes a fairly good fence. As an undergrowth, *P. L. rotundifolia* is probably the best variety. *P. L. latifolia* makes a fine shrub if kept carefully pruned. Other varieties are only interesting as botanical specimens. T.S.

## TREES AND SHRUBS FOR GARDEN AND PARK.

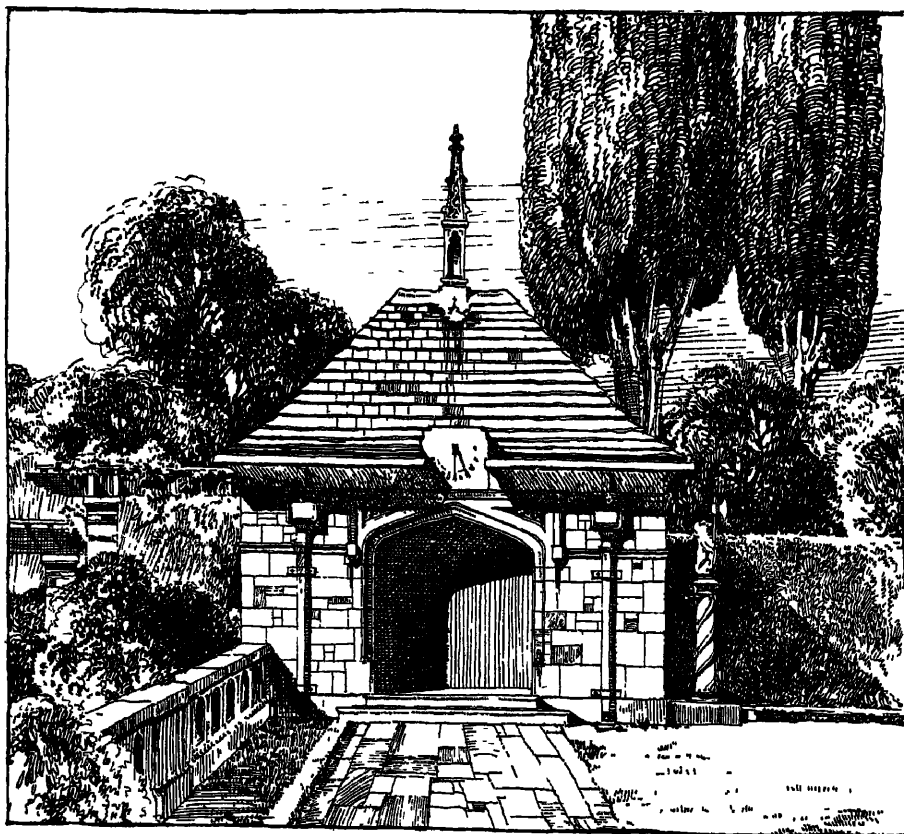
### *Evergreen shrubs.*

**PRUNUS LUSITANICA** (syn *Cerasus lusitanica*), the "Portugal Laurel," is in every way a most valuable shrub, and is adapted to any position, whether windy or exposed, and will do well in most town gardens. For hedging it is superior to the common Laurel, the smaller dark leaves giving a neater appearance. The small-leaved varieties are very good. T.S.

**PHILLYREA** These comparatively little known shrubs are very similar in appearance and growth to small-leaved evergreen Oaks. They make fine bushes, growing up to 8 or 10 feet in height, they succeed in most soils, and are valuable for town or suburban gardens, or for cold, windy situations. The best species and varieties are *P. angustifolia*, *P. latifolia* with its varieties, *P. ilicifolia* and *P. rotundifolia*; *P. media*, with *P. m. buxifolia*, *P. oleæfolia* and *P. Vilmoriniana*. T.S.

**QUERCUS** This genus includes many very useful evergreen trees, which in some localities are invaluable. This is especially so near the coast or in suburban gardens which are near smoky towns. Along the south and west coasts of England they grow and succeed quite close to the sea, but in many places along the east coast, especially if in exposed situations, they are not so successful. The effect of a short avenue of Evergreen Oaks, more particularly when the branches meet over the path, is very fine indeed, while for a wind screen they are excellent, the density of their foliage forming a veritable wall of greenery. Evergreen Oaks are very difficult to establish unless they are purchased in pots, in which way many nurserymen grow them. The best forms are *Q. Ilex*, the "Holm Oak," and its varieties: *Q. acuta*, *Q. coccifera*, the "Kermes Oak", *Q. glauca* and *Q. phillyreoides*. T.S.

**ROSEMARY.** *Rosemarinus officinalis*. This hardy evergreen shrub should be found together with Lavender, in every garden. It is effective all the year round, and especially in winter. Rosemary is best propagated by early summer cuttings; it prefers the base of a low wall, but it does not resent hot, sandy soils, and full exposure to the sun.







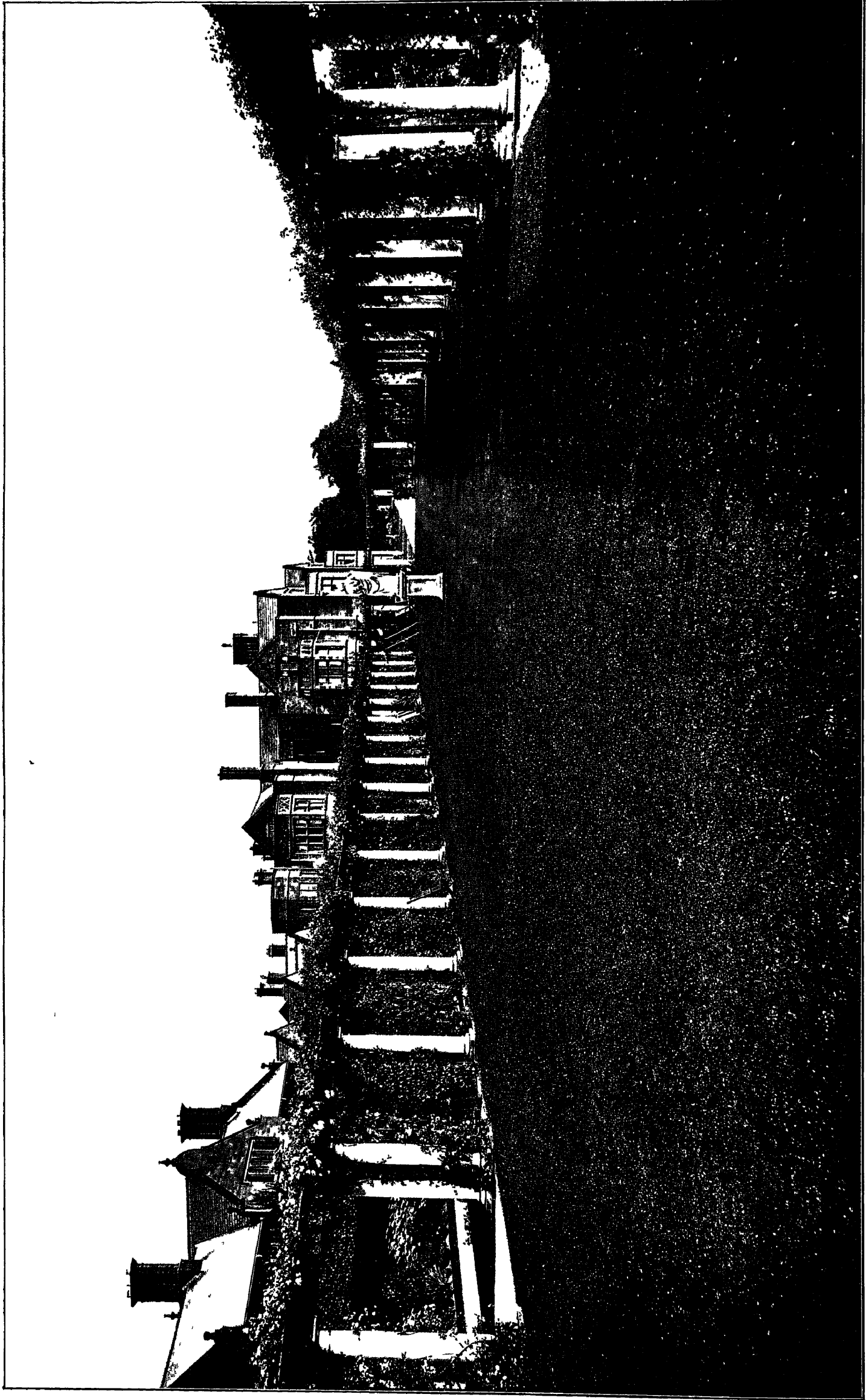
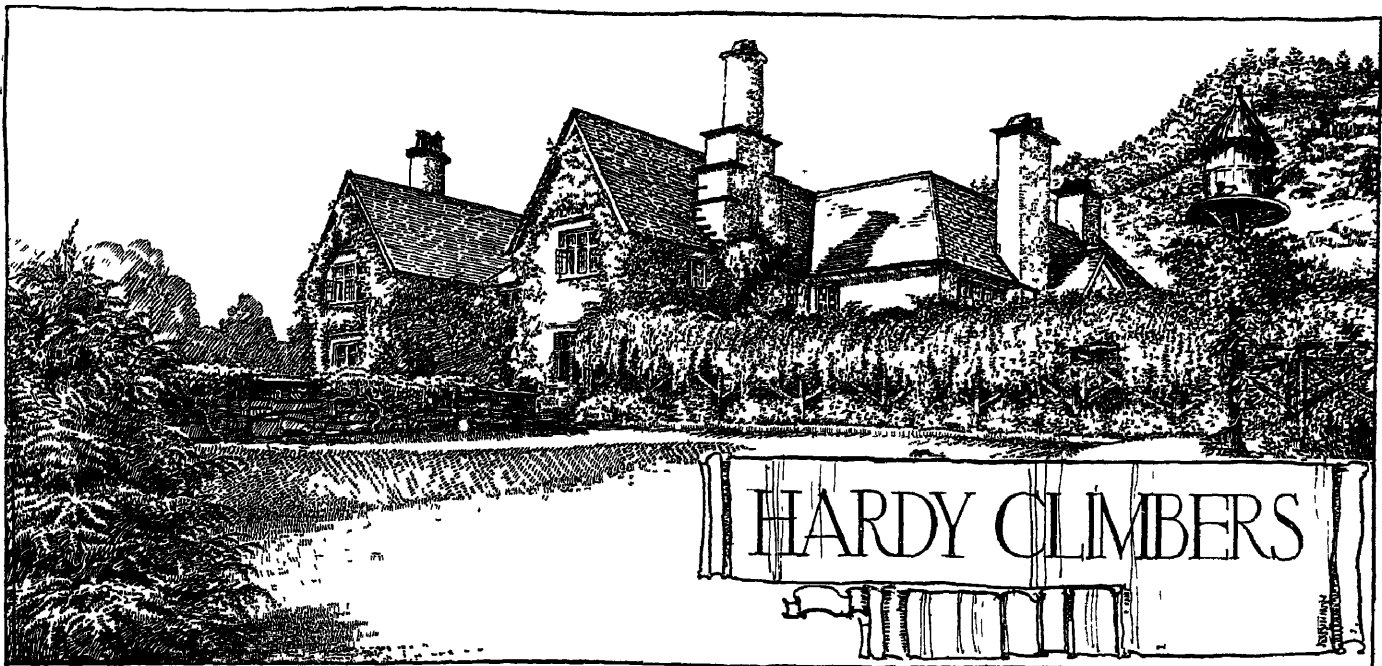


FIG. 429—CLIMBER-COVERED COLUMNS AND TRELLAGE ENCLOSING GARDEN FORUM AT THORNTON MANOR, CHESHIRE,  
*Designed in collaboration with J. Simpson, Esq*



## CHAPTER XIX

Climbers, the jaunty prodigals of the garden, led by the irrepressible ivy green or the all-enveloping Virginian-creeper, so resplendent in Autumn, are invaluable in almost every situation. From the forest brake where added vegetation is superfluous, to the dingy slum where every green leaf is welcome, they intrude unabashed, mounting up by their clinging tendrils and flinging out their prehensory masses and sprays. In addition to their beauty of foliage and blossom, they possess, in the honeysuckle and its kindred, auxiliaries which win us by their odours rare and sweet, and which secure them the desired recognition. Everywhere they gain a place from economic reasons, the profuse display which they make for so little ground space afforded, gives them a decided popularity beyond that of self-supporting plants.

Trained over verandahs, they form sheets of pleasing foliage, that delight the eye with their brilliantly coloured flowers on backgrounds of cool greenery; alongside the walks they form long bowers, where we can enjoy at sultry noon the coolness of declining day. Wherever there are terrace walls fronted with flower beds, the general effect is assisted considerably if the wall is clothed with the foliage of choice Ivies, Ceanothus, or Cratægus, which make a much more effective background for flowers than brick or stone.

There are limitations and bounds within which climbers should be restrained. Sometimes the grosser common ivy, which can subsist on the mortar in walls, even when severed from the root, and the Virginian-creeper, are allowed to overstep these bounds, as when they are allowed to make costly and dangerous inroads into the walls and roofs of habitations, or hide beautifully dressed stonework and fine carving. With thoughtless people this brings discredit on the whole family of the garden designer's reinforcements, whereas, if but a few moments' reflection were given to the proper selection of climbers, trouble would not follow. Similar remonstrances might be expressed, when in those parts of the grounds where it is desirable to have a clean-cut appearance of columnar tree trunks and shorn grass, ivy and honeysuckle are allowed to grow over both young and old trees indiscriminately, and envelop all in an atmosphere of unrestraint.

*Too  
prodigal  
climbers.*

On the other hand, much needless expense is often lavished upon the adornment and detail of supplementary buildings such as entrances, gate piers and even outbuildings, where, if a little foresight had been exercised and the climbers taken into account when planning, any rough foundation of broken stone or brick combined with cement roughcast would have answered the purpose, though in illustration No. 430 the eye demands the

## CLIMBERS FOR WALLS, PERGOLAS AND TRELLIS.

### *Climbers.*

clear-cut lines of the noble gate piers to form a complement to the fine wrought iron, there being sufficient vegetation in the Scots Pine and the climber-clad walls.

In the following list of climbers are included a number of plants, such as *Garrya elliptica*, *Berberis Darwinii*, and *Desfontania spinosa*, which are of a shrubby character. These are intended for covering low walls, or for planting in positions against the house or other buildings of no great height, they are most effective placed under a bay or oriel window. They should be trained as half climbers and half bush, the principal branches being secured to the walls, but the lateral shoots allowed to grow outwards.

**ABELIA.** A pretty genus of small shrubs which are fitting subjects for covering low walls *A. chinensis*, with pinkish flowers; *A. floribunda*, flowers rosy purple in colour; and *A. triflora*, blooms very sweet scented, deserve places on a sheltered wall.

**ABUTILON.** *A. vitifolium*, an admirable half shrubby climber for warm walls. It has pale mauve flowers that expand widely in the sun, and its silvery foliage and stems are most ornamental.

**AMPELOPSIS VEITCHII.** See *VITIS*.

**ARISTOLOCHIA SIPHO**, the large-leaved climber which is growing over Professor Ruskin's house at Brantwood. It is a deciduous species, but the shoots are green in Winter. This plant flourishes in almost any aspect.

**AZARA MICROPHYLLA**, a small-leaved and very showy hardy evergreen shrub or climber, with numerous small green flowers which are very fragrant.

**BUDDLEIA**, as described in the list

of shrubs, is an excellent shrubby climber for covering walls, and one which does well by the sea. The best varieties are *B. variabilis*, *B. v. Veitchiana* and *B. globosa*.

**CALYSTEGIA**, the "Bear-bind," belonging to the Order *Convolvulaceæ*, makes a splendid climber, and covers quickly. The following are distinct forms: *C. hederacea*, *C. sepium*, the "Common Bear-bind"; *C. Soldanella*, and *C. macrostegia*.

**CARPENTERIA CALIFORNICA**, an ornamental tall-growing shrub, thriving in any good soil, but requiring the protection of a south wall. It has long lanceolate leaves, white on the underside, and white flowers.

**CEANOTHUS.** In warm sheltered positions, or near the coast, few climbers surpass the *Ceanothus*. The habit of the plant, which is half shrubby and evergreen, commends it for many positions where it is difficult to find a suitable climber, as for instance round a verandah pillar, clothing a piece of blank wall, or high terrace wall. It is not perfectly hardy in Scotland or the North of England, and resents a cold



FIG 430 —NOBLE ARCHITECTURE OBSCURED BY TOO RAMPANT CLIMBERS.

## CLIMBERS FOR WALLS, PERGOLAS AND TRELIS.

clay soil. The best forms are *C. americanus*, the "New Jersey Tea," with white flowers; *C. azureus* (blue), *C. divaricatus* (pale blue), *C. papillosus*, with narrow leaves and blue flowers; *C. rigidus*, flowers a splendid rich blue colour, *C. thyrsiflorus*, the "California Lilac," and *C. Veitchianus*. A large number of garden hybrids are offered by nurserymen, the best being *Gloire de Versailles* (blue), *Indigo* (the finest of all the hybrids), *George Simon* (rose), *Albert Petett* (rose), *Gloire de Plantieres* (blue), and *Perle Rose*.

*CHOISYA TERNATA*, see list of shrubs

*CHIMONANTHUS FRAGRANS*, with *C. f. GRANDIFLORUS*, makes a splendid fragrant wall plant suitable for a sheltered position.

*CLERODENDRON*. *C. trichotomum* and *C. Fargesii* are two handsome shrubs suitable for covering walls in sheltered positions. They have large green foliage and white flowers with a purple calyx, about September.

*CONVOLVULUS*, the "Bindweed," is a very common climber, but nevertheless pretty. There is quite a large number of forms, all of which are useful.

*COTONEASTER*. Many of the species in this genus have rather a flat form of growth, and adapt themselves readily for covering walls. *C. microphylla*, *C. angustifolia*, *C. Simonsii*, *C. horizontalis*, and *C. rotundifolia* are suitable for covering low walls or for training up the jambs and mullions of a window.

*CRATÆGUS PYRACANTHA*, with its clusters of red berries in the autumn and winter, is useful for covering a wall, the flowers are similar to most other thorns. *C. P. Lelandii* is an improved variety of the type.

*CLEMATIS*. Although decidedly popular, these climbers are not employed as extensively as they deserve to be. The ease with which they can be reared ought in itself to be sufficient inducement to extend their cultivation. For giving a picturesque character to a cottage in the least possible time, *C. montana* is difficult to surpass; for the porch *C. Jackmanii*, with its beautiful purple flowers will, within a very short time, make a show; for a pergola, *C. flammula*, *C. montana*, or *C. vitalba*, are excellent. The choicer varieties, such as *C. Beauty of Worcester*, *C. Anderson Henryi* and *Miss Bateman*, make a grand show when grown laterally over wooden pillars, in fact, there are few positions in which *Clematis* of some sort may not be planted. No fear of monotony from lack of varieties need be entertained, as the number obtainable are quite sufficient security against this. The following are all good:—

	Time of Flowering.		Time of Flowering
<i>ALBA MAGNA</i> , white flowers with purple brown anthers .. .	July to Oct.	<i>BEAUTY OF WORCESTER</i> produces single and double flowers on same plant, bluish violet, with white stamens	
<i>ARMANDII</i> , evergreen foliage and white flowers in early Spring		A vigorous grower and a remarkably free and continuous bloomer, flowering at almost every joint ..	June to Oct
<i>ANDERSON HENRYI</i> , one of the best, creamy-white large flowers, effective if trained over trellis ..	July to Oct.		



FIG 431.

# CLIMBERS FOR WALLS, PERGOLAS AND TRELLIS.

## Climbers

	Time of Flowering.		Time of Flowering.
FAIRY QUEEN, pale flesh-pink bar ..	July to Oct	MRS GEORGE JACKMAN, satin white, very beautiful .. ...	June to Oct.
FLAMMULA, sweet-scented, white, re- commended for pergolas ..	June to July.	MISS BATEMAN, white, red anthers ..	May to July.
JACKMANII, intense violet-purple ..	July to Oct	NELLY MOSER, pink .. ...	July to Oct.
„ ALBA, fine white ... ..	July to Oct	PURPUREA ELEGANS, deep violet pur- ple, one of the best of its class, very effective planted in conjunction with C Anderson Henryi .. ...	July to Oct.
„ RUBRA, fine red .. ..	July to Oct	ORIENTALIS TANGUTICA, yellow flowers and masses of woolly seed ...	
LADY CAROLINE NEVILLE, French white with mauve bars . . .	July to Oct	PRINCESS BEATRICE. A variety of merit. The flowers, 6 to 8 inches across, are of great substance, the petals being broad and overlapping each other The colour of the flower is silvery lilac .. .	July to Oct.
LADY NORTHCLIFFE, blue . . . .	July to Oct.	SIR GARNET WOLSELEY, slaty-blue ..	May to June
LORD NEVILLE, dark plum colour; the stamens are much lighter, but the anthers are dark, the flowers are crinkled, which added to the colour, makes the plant distinctive ..	July to Oct.	VENUS VICTRIX, a fine double-flowered variety, lavender-blue, and very beautiful ... .	July to Oct.
LOUIS VAN HOUTTE, violet purple, a free grower and hardy .	June to Oct.	WILLIAM KENNETT, deep lavender .	June to Oct.
MADAME EDOUARD ANDRÉ, is of the Jackmani type, but eclipses it in colour which is brilliant crimson, a colour hitherto unknown amongst Clematis Very hardy, and a rapid grower . . . .	July to Oct.	BLUE GEM, pale cerulean blue, fading to satin mauve ... .	July to Oct.
MARCEL MOSER, beautiful mauve vio- let, with red bar .. ...	July to Oct.	COUNTESS OF LOVELACE, bluish violet, double .	June to July.
MONTANA. Although a small-flowered variety, this is one of the most useful climbers, growing almost anywhere It is inclined to get ragged in appear- ance if not trained or pruned ...	May to June	DUCHESS OF EDINBURGH, an excellent and sweet-scented variety with double white flowers . . .	June to July.
M RUBENS, a red form of the above			

Other good species are *C. alpina*, *C. aromatica*, *C. campaniflora*, *C. crispa*, *C. florida*, *C. orientalis*, *C. paniculata*, *C. patens* and *C. viticella*.

*CYDONIA JAPONICA*, the "Japanese Quince," is a great favourite for training against a wall, and has red flowers. There are numerous other varieties with different coloured blooms. It is also useful as a shrub

*DESFONTANIA SPINOSA*, an evergreen holly-like shrubby climber, with bunches of wax-like coral coloured trumpet-shaped flowers.

*ESCALLONIA*. A popular climber for seaside gardens, excellent for clothing low buildings or walls. The best are *E. macrantha*, reddish pink, *E. Philippiana*, with white flowers; and *E. langleyensis* (*E. Philippiana* x *E. macrantha*), bright scarlet. *E. exoniensis* is a very beautiful white form.

*EUCRYPHIA BILLARDIERI* This species is generally treated as a greenhouse shrub, but is quite hardy grown in peat and sand against a south wall. It bears very showy white flowers in great profusion. Other species are *E. cordifolia* and *E. pinnatifolia*.

*GARRYA ELLIPTICA* This, although usually considered a shrub, makes a most excellent wall plant, its foliage resembling that of an evergreen oak. Its specific beauty is to be attributed to the numerous golden yellow hazel-like catkins which hang from the plant throughout the winter months, thus adding interest to the walls at a time when most climbers are dormant. It will grow in a north aspect.

*HEDERA* (Ivy). *H. Helix*, the Common Ivy, is well-known, and everyone realises its usefulness. The most distinct forms from the trailing sections are *H. H. algeriensis* variegata, *H. H. atropurpurea*, *H. H. angularis*, *H. H. folius aureis*, *H. H. canariensis*, the "Irish Ivy"; *H. H. Cavendishii*, *H. H. Crippsii*, *H. H. maderiensis*, *H. H. variegata*, *H. H. palmata aurea*, *H. H. pedata*, *H. H. rhombea*, and a host of others. *H. H. arborescens*, *H. H. folius argenteis marginatis*, *H. H. canariensis*

## CLIMBERS FOR WALLS, PERGOLAS AND TRELLIS

arborescens, *H. H. digitata* and *H. H. Raegneriana*, are worthy examples of the tree section. The varieties of small leaved Ivy named Emerald Green and Buttercup are good. The first is a swift climber and the second has small golden leaves.

*Climbers.*

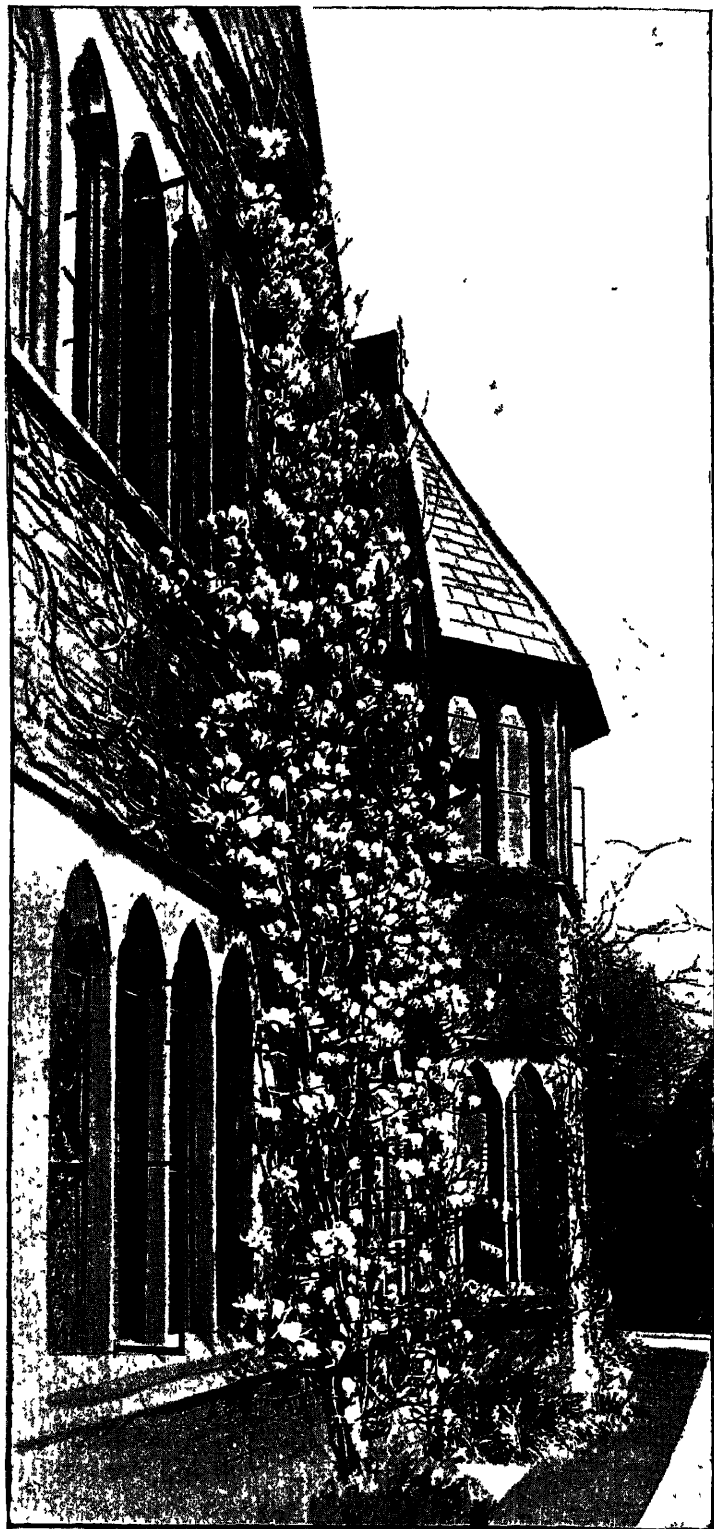


FIG. 432 —*MAGNOLIA CONSPICUA SOULANGIANA*.

*MAGNOLIA GRANDIFLORA*, together with its Exmouth variety known as the "Bull Bays," with their various forms, are excellent evergreens for wall planting; while *M. conspicua*, the "Yulan," *M. c. Soulangiana* and *M. Lennei* and *stellata* are good deciduous forms. (Ill. No. 432).

*OZOTHAMNUS ROSMARINIFOLIUS*, an Australian shrub requiring the protection of a wall. It bears heads of white flowers in dense corymbs during July; the leaves are small.

*POLYGONUM BALDSCHUANICUM*, a rapid grower with panicles of pinky-white flowers.

*SOLANUM*. *S. Jasminoides* is a pretty and quick climber for sheltered positions and has a profusion of small fragrant white flowers in summer.

*SOPHORA VICIFOLIA*, a most useful wall plant.

*HELICHRYSUM ROSMARINIFOLIUM*. "Snow in Summer." A beautiful shrub admirably adapted for training over a terrace wall. It is also hardy in the open border in the South of England, although uncertain in the North.

*JASMINUM*. A beautiful genus of sweet-scented climbers, the most useful being *J. officinale*, the "Jessamine," with the variety *J. o. affine*. Interesting species are *J. nudiflorum*, with yellow flowers, which open in the winter months; also *J. humile* and *J. fruticans*, while *J. primulinum*, an introduction from Yunnan, should be given a very sheltered position.

*LONICERA PERICLYMENUM*, the "Honeysuckle" or "Woodbine," is well-known in Europe as a beautiful climber. A great variety of forms is offered by nurserymen, the best being *L. P. belgica*, *L. P. serotina*; also the nursery forms of late and early Dutch Honeysuckle; *L. sempervirens*, the "Trumpet Honeysuckle"; *L. Caprifolium*, *L. japonica*, and the varieties *L. j. Halhana*, *L. j. flexuosa*, and *L. j. aurea-reticulata*. Although so well known, they are not planted as freely as they deserve to be. For walls having a north-west and north-east aspect, and for planting in partial shade, they are indispensable. For bowers, covering trellis, and training up pillars, they have few equals, combining beauty of flower with the most delicious scent.

## CLIMBERS FOR WALLS, PERGOLAS AND TRELLIS.

### Climbers

*TRACHELOSPERMUM CROCOSTOMUM* is a beautiful climber with pale yellow flowers, which are very sweet-scented. It is most suitable for a wall in a sheltered position.

*TROPÆOLUM SPECIOSUM* (Flame Flower). The scarlet-flowered climber which makes such a splendid sheet of colour in front of many Westmorland cottages. It prefers a north or west aspect.

*VITIS INCONSTANS* (syn. *Ampelopsis Veitchii*). One of the most beautiful of climbers, charming alike in spring-time, when bursting into leaf, and gorgeous in the autumn, when the leaves are touched by the first slight frost. This climber does not like new cement work, it is, however, very easy to rear, and once established grows at a remarkable speed, requiring no nailing, and flourishing in almost any atmosphere.

Another variety is *V. purpurea*, a seedling of great merit, which has purple leaves. Other good and interesting climbers in this genus are *V. Cognetiæ*, with large leaves; *V. quinquefolia*, the "Virginia Creeper"; *V. vinifera*, the "Grape Vine"; *V. v. purpurea*, with purple leaves; *V. Romaneti*, *V. Thunbergii*, and many others.



FIG. 433.—CLIMBER-COVERED TERRACE WALLS

*V. Henryana* is a variety with mottled leaves, but not yet proved hardy in the northern counties.

*WISTARIA*. A beautiful climber which covers very quickly. The forms are *W. chinensis*, *W. japonica*, *W. frutescens*, and *W. multijuga*, with racemes of flowers eighteen inches long.

## HARDY ROSES FOR BOWERS

### Roses.

The great beauty of many of the new hybrid perpetual roses, and the desirability of finding a place for them, is fully acknowledged, but they should not occupy the entire area available, to the exclusion of many varieties which make the older gardens so delightful. The fine old Scotch climbing roses, so wayward in their growth, but covered with clusters of fragrant flowers, the Banksian and Bour-saults, the Provence and cabbage roses, notwithstanding all the recent improvements, might still be planted with great advantage. Roses have, to the garden designer, other qualities than mere size, and for this reason he is much more interested in the good work done by rose-growers in the raising of the many magnificent varieties of hardy tea roses, than in some of the later additions to hybrid perpetuals. The varieties of single roses and briars are now very numerous, but unfortunately the flowering season is a very short one. It is only necessary to mention Paul's



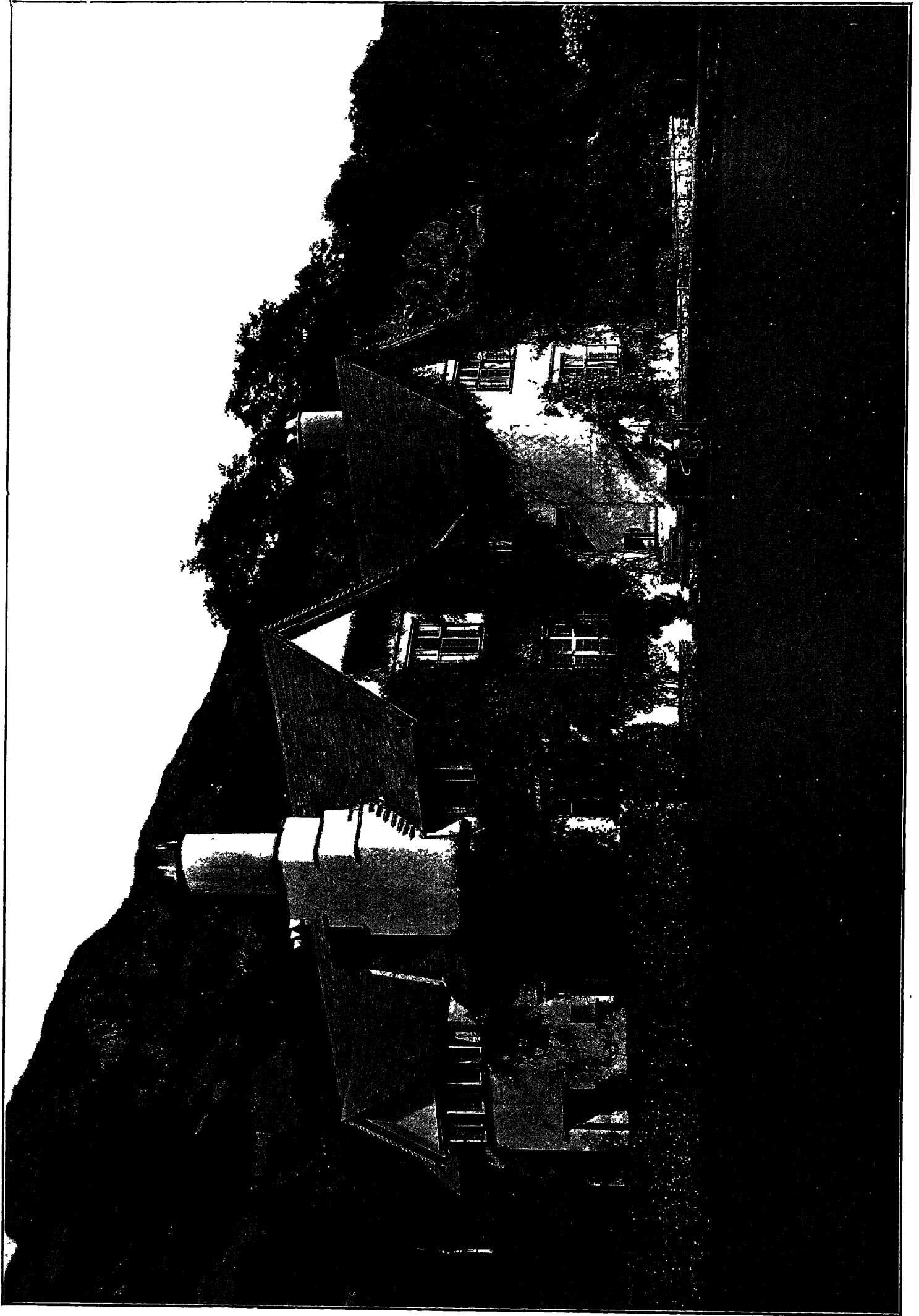


FIG. 434.—A WESTMORLAND HOUSE CLAD WITH CLIMBERS.



## CLIMBERS FOR WALLS, PERGOLAS AND TRELLIS.

### Roses.

Carmine Pillar and Lord Penzance's Sweet Briars to realise how much our gardens have been enriched by the indefatigable industry of rose enthusiasts, and we are



FIG. 435.—DOROTHY PERKINS ROSE TRAINED AS AN ARCH

equally indebted to them for the re-discovery of old favourites and the importation of many varieties, such as the Crimson Rambler and the finer forms of Wichuraiana.

AYRSHIRE ROSES including Bennett's Seedling, pure white and strong, Dundee Rambler, white tinged pink, Félicité Perpétue, creamy white, borne in clusters, an evergreen variety; Queen of the Belgians, white, Splendens or Myrrh-scented, flesh colour.

BOURSAULT. There are a number of varieties of Boursault roses, but the best for general planting are Amadis, a large crimson-flowered variety, Elegans, crimson, purple and white stripes, and Inermis a bright red.

BANKSIAN FORTUNEI, white and sweet. There are

also the common white and yellow varieties, both of which are beautifully scented.

CLIMBING DEVONIENSIS, creamy white, very large and full

GLOIRE DE DIJON, yellow, tinted with salmon, a very fine rose—the rose of roses, without question the finest and most useful climbing rose in cultivation.

MACARTNEY, an extremely pretty single white rose which may be trained over walls, fences, pergolas, trellis, or almost anywhere where freedom of growth is required

MULTIFLORA, pale flesh.

MOSCHATA, the "Musk Rose" (syn. Brunonii). As the name implies, these are fragrant. The following are good, viz.; Fringed, which is a pink colour with cup-shaped serrated petals, Princess de Nassau, with yellow cup-shaped flowers; and Rivers, which has cream-coloured flowers.

NOISETTE ROSES. Most of the roses in this class bloom in clusters, they are superb for south and west walls, pillars and trellis. For planting against terrace walls there are very few climbers to equal them. Most of them bear large and handsome

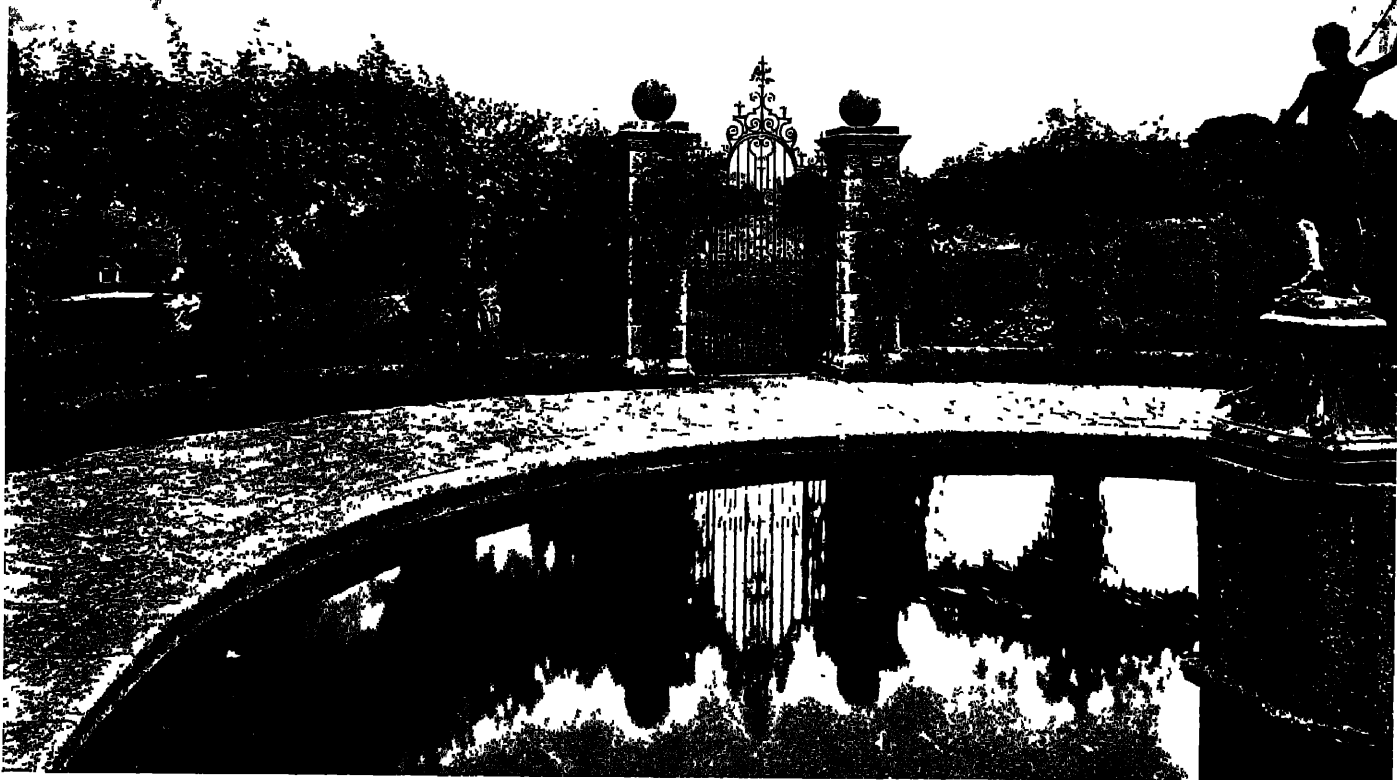


FIG. 436.—CLIMBERS AT WOOD, DEVONSHIRE, LOOKING FROM THE HOUSE.

flowers, are highly fragrant, and of vigorous climbing habit. A few of the best are —

AIMÉE VIBERT, white and continuous blooming  
BOUQUET d'OR, deep yellow, shaded copper  
CELINE FORESTIER, lemon, good free bloomer  
CLOTH OF GOLD, yellow, large and very splendid.  
COQUETTE DES BLANCHES, pure white, very fine.  
JAUNE DESPREZ, pale lemon  
LAMARQUE, creamy white  
MADAME ALFRED CARRIÈRE, large white fragrant  
flowers, a fine pillar rose.

RÊVE D'OR, deep yellow, sometimes coppery  
SOLFA, sulphur, large and very double  
TRIOMPHE DE RENNES, deep lemon, large, full and  
fine  
WILLIAM ALLEN RICHARDSON, is one of the best known  
popular roses in cultivation. This variety is,  
owing to its beautiful foliage and profusion of rich  
orange-coloured flowers, worthy of a position on  
every rose wall.

CRIMSON RAMBLER (Polyantha Rose). This variety is invaluable to the garden designer for clothing a low trellis or pergola quickly, or for breaking up plantations of evergreens with pillars of brilliant colour. Other fine varieties are:—

EUPHROSINE, pink.  
BLUSH RAMBLER, pink  
LEUCHTSTERN, white and pink  
THALIA, white  
PSYCHE, pink  
WALTHAM RAMBLER, white and pink.

ELECTRA, yellow.  
RUBIN, crimson  
TAUSENDSCHON, pink.  
FLOWER OF FAIRFIELD, crimson  
TRIER, white  
THE GARLAND, white.

SINGLE CLIMBING AND PILLAR ROSES AND BRIARS. A most interesting and useful class of roses, which has been latterly overlooked; some of the varieties are charming for training up pillars. The following are the most distinct:—*Rosa alpina*, the parent of the Boursaults, is a strong grower, flowering very early in spring; colour rosy red. *Rosa gigantea* (Indian rose), an almost continuous bloomer; several varieties are obtainable, but the pink and crimson forms are the best.

## CLIMBERS FOR WALLS, PERGOLAS AND TRELLIS

### Roses.

**AUSTRIAN BRIARS** (Copper and Yellow) For planting along a low trellis or short pillars, these give, when in flower, an effect unlike any other rose. The colour alone is sufficient to attract attention; to this is added a flower of perfect shape, borne in such profusion as to make one mass of colour. Both varieties are perfectly hardy, and have the fragrance of the common sweet briar. These roses flower on the shoots of the preceding year's growth.

**PAUL'S CARMINE PILLAR AND SINGLE WHITE**, are useful for planting against walls or trellis, or for forming rose banks, both are of vigorous growth and very floriferous; Paul's Carmine especially may be considered as one of the most beautiful single roses in cultivation.

**LORD PENZANCE'S SWEET BRIARS** may be classed amongst the finest introductions to our gardens in recent years. This will be realized when it is stated that to the fragrance of the old sweet briar has been added beauty of form and size and colour of flower; the blooms being as large as those of Austrian briars, while the colours range from white to dark crimson. Briar roses will be found most useful for forming masses of colour on the lawn, or for planting rough land or banks, they may also be used for pillars, low fences, or walls, or for training as loose hedges. The best varieties are —Amy Robsart, Anne of Gierstein, Brenda, Catherine Seyton, Edith Bellenden, Flora McIvor, Jeanie Deans, Julia Mannering, Lady Penzance, Lord Penzance, Lucy Ashton, Lucy Bertram, Meg Merrihes, Minna, and Rose Bradwardine.

**HYBRID TEAS AND PERPETUALS FOR CLIMBING** This class is easily distinguished from others by the peculiar and delightful fragrance of the flowers and vigorous growth. They are invaluable as supplying the various shades of yellow wanting amongst the hybrid perpetuals, and also because the many varieties are so charming for covering terrace walls facing south. A warm aspect with well drained soil suits them. The following are some of the best.—

<b>CLIMBING CAPT. CHRISTY</b> , pink	<b>GLOIRE LYONNAISE</b> , white
„ <b>CAROLINE TESTOUT</b> , pink	<b>IRISH ELEGANCE</b> , single orange scarlet
„ <b>FRAU KARL DRUSCHKI</b> , white	„ <b>ENGINEER</b> , single scarlet
„ <b>JULES MARGOTTIN</b> , carmine	„ <b>GLORY</b> , single pink
„ <b>KAISERIN A VICTORIA</b> , white	<b>REINE MARIE HENRIETTE</b> , red.
„ <b>LA FRANCE</b> , pink	<b>WALTHAM CLIMBER</b> , red.
„ <b>MRS W J GRANT</b> , pink	<b>CHESHUNT HYBRID</b> , red
„ <b>PAPA GONTIER</b> , red	

**WICHURIANA ROSES**, a Japanese Rose with many hybrids of which the best are American Pillar, large single, cerise pink; Dorothy Perkins, pink; white Dorothy Perkins; Lady Gay, pink; Excelsa, crimson; Hiawatha, single red in clusters, with white eye; Paul Transon, pink; Alberic Barbier, yellow, Jersey Beauty, single cream, Christian Curle, pale pink; Shower of Gold, yellow.

Tea Roses are omitted. They are not hardy in the North of England, although they succeed in the Southern Counties.



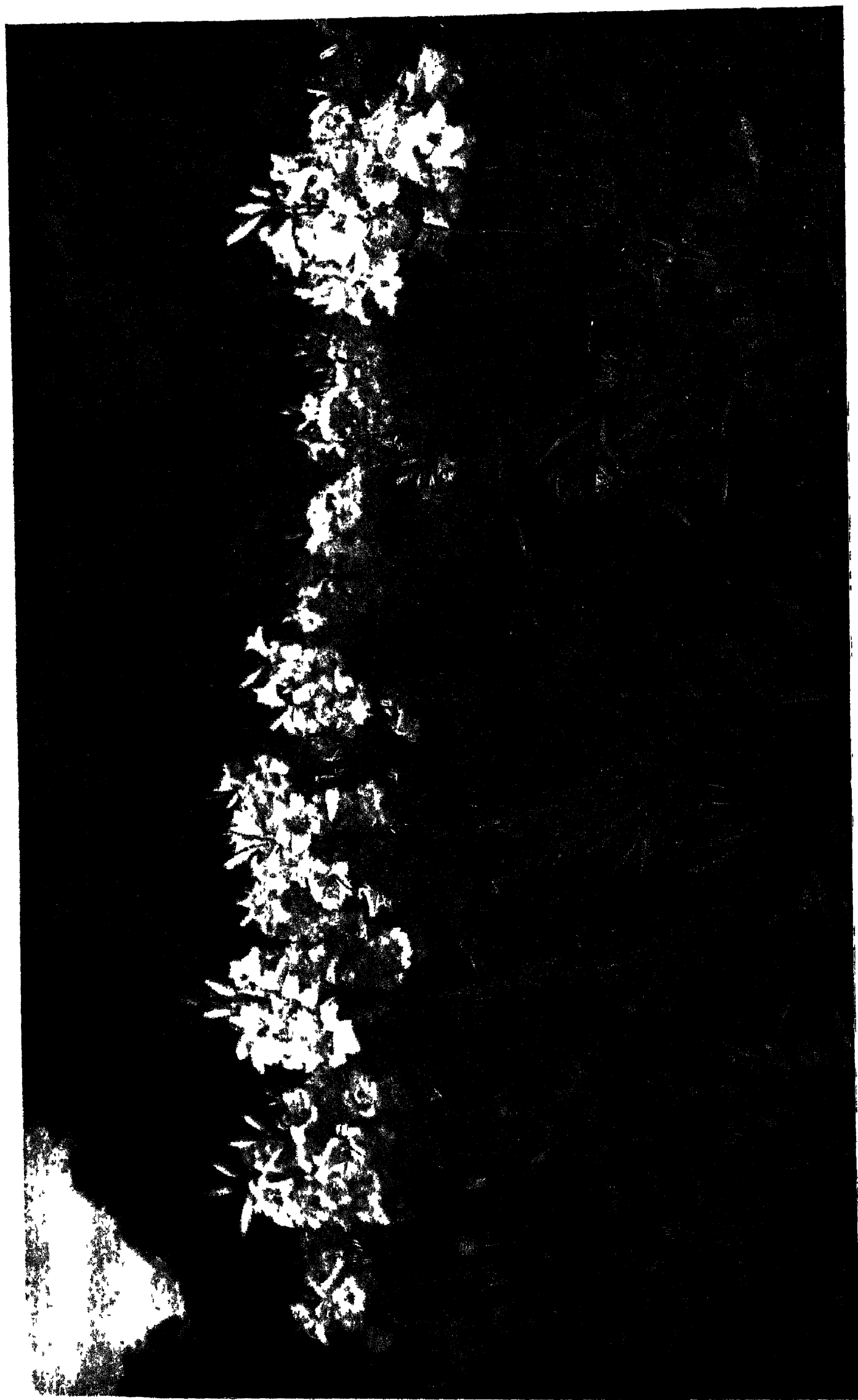


FIG. 437 —LILIUM CANDIDUM (THE MADONNA LILY), IN HERBACEOUS BORDER,



## CHAPTER XX.

The garden designer works for different ends, and has different objects in view from the collector, or the nurseryman distributor of hardy plants. They collect and display the materials wherewith he composes his harmonies; and he, not disdaining the full choice presented—as an artist prefers a full range to colours wherewith to express his pictorial presentment—prefers that the selective material be located in the reserve garden or home nursery, where he can compare colours and educate and protect himself against mistakes in planting the perennial borders. The list given makes no pretence of including more than a fractional number of the really reliable hardy plants to be found in the nurseryman's excellent lists, but is the result of a long experimental selection, and a series of comparative tests, not only of hardiness, but also adaptability to varying soils and localities, and includes only those which do not require special and difficult cultivation, and such as are suitable for planting in masses for colour effect.

To avoid disappointment it is necessary to point out first of all the impossibility of obtaining flower borders, which, as certain rhapsodical garden writers suggest, can be maintained continuously gay for about ten months of the year. Successive floral displays may be obtained within a restricted area but not continuously in the same border. White sheets of snowdrops in February under the apple trees, carpets of lovely crocus on the lawns in March, and waving banks of daffodils in the coppice in April, are each in their places delightful, but the intervening grassy spaces or patches of bare brown earth amidst the colonies of bloom in the border are inevitable, unless great expense and time are spent upon them. But notwithstanding whatever has been said in praise of the lavish system which must have display both in season and out of season, the underlying purpose of this work is the encouragement of those garden lovers who desire to see their gardens grow and develop under their hands in homely beauty, and who, without burdening themselves and converting a pleasure into a task, look to them for relaxation and recuperation.

*Successive  
floral  
displays.*

Such garden lovers as desire the unstudied grace of homely beauty and are content with that which is beautiful in its season, will not mind broad intervening masses of foliage or even patches of soil amidst the large clumps of flower, there is always the pleasant retrospect and forecast of what has been, or is to be, in seed or bud. If it is imperative that there should be no bare interspaces, then the showy annuals may be called upon as reserves, or biennials such as *Antirrhinums*, *Pentstemons* or *Canterbury Bells*, may give a more lasting result; but annuals, if duly thinned out and given sufficient room to flower and flourish, fulfil the purpose. Some of these, such as the rose

## HARDY FLOWERING PERENNIALS FOR BEDS, BORDERS, &c.

mallow so effective in town gardens, and the annual Chrysanthemums, Larkspurs and Stocks, might without hesitation find places in every herbaceous border

The border which is gay in April or May with Daffodils, Tulips, Polyanthus, and Brompton Stocks, Iberis and Aubrietias, may be brightly hued again in July and early August with Phlox, Hollyhocks, Speedwells, Delphiniums, and the hosts of other plants in flower at this season; whilst the gardener who looked ahead would also ensure fine colour effects in October and November from Chrysanthemums, Michaelmas Daisies and Pyrethrums, provided always that the borders are ample and spacious.

All the perennials enumerated might be planted at any time from March to September,

provided they are obtained from the nurseries in pots; or they may be planted direct from the open ground from March to the middle of May, and at any time during September or October

No list of hardy perennials would be complete without a selection from the large families of bulbous plants which make our gardens gay in spring and early summer. I have therefore enumerated the most effective Daffodils, Wood Hyacinths, and Anemones

**ACANTHUS MOLLIS** A plant with fine, much serrated foliage, and flower spikes which often attain a height of 3 to 4 feet. An excellent plant for the wild garden

**ACHILLEA, Snowball.** A fine border plant, bearing numerous heads of pure white flowers, useful for cutting, height 2 feet. *A. Clavennæ* and *A. tomentosa* are dwarf varieties useful for walls or the rock garden.

**ACONITUM, or Monk's Hood.** An old-fashioned, strong-growing perennial. The finest are *A. napellus*, *A. album*;

*A. versicolor*, blue and white; and *A. autumnale*, a fine purple, flowers late into September; it grows 3 to 4 feet high.

**ADONIS VERNALIS.** This variety bears large bright yellow buttercup-like flowers early in Spring; it has finely cut leaves, height 1 foot

**ALPINE PHLOX.** A beautiful class of dwarf easily grown plants, suitable for growing over rocks. To ensure success, plant in a good open soil. Amongst the best are *P. Vivid*, fine bright pink; *P. Nelsoni*, good clear white, *P. atropurpurea*, a rich crimson, flowering in the early spring, *P. The Bride*, white, and *P. G. F. Wilson*, a pretty lilac.

**ALSTORMERIA.** A splendid class of plants for border decoration. *A. revoluta* is a good orange colour, and *A. aurea*, pale yellow; both are very useful for cutting and make a fine show for bed or border

**ALYSSUM.** The most useful for rockwork are *A. alpestre*, *A. montanum*, *A. saxatile compactum*, *A. saxatile plenum*, a double variety, and *A. citrinum*; they are all dwarf-growing varieties with bright yellow-coloured flowers, and all do well on walls or in a dry sunny position



FIG. 438.—DELPHINIUMS

Hardy  
perennials.

## HARDY FLOWERING PERENNIALS FOR BEDS, BORDERS, &c.

**ANCHUSA** *A. italica*, "Dropmore" variety, should be introduced in every border for its wonderful show of dazzling blue flowers. Opal is another variety with exquisite pale blue flowers. Also *myosotidiflora*, forget-me-not blue flowers, rising above dark green foliage, excellent for shady parts of a border. *Hardy Perennials.*

**ANEMONE**, the wind flower, provides a large and charming class of plants of easy culture. The following should have a place in the garden — *Anemone apennina*, deep blue, and of dwarf and very free habit; *A. blanda*, a fine deep blue, *A. nemorosa* *Robinsoniana*, a pretty pale blue; *A. ranunculoides*, a bright yellow, makes a fine contrast when seen growing amongst the blues, and has finely-cut foliage; *A. nemorosa alba plena*, the double white wood Anemone, one of the finest and a free bloomer; *A. fulgens*, the scarlet wind flower, bears pretty scarlet flowers about an inch and a half across, it is of easy growth and most effective, and grows about fifteen inches high; *A. japonica alba*, a well known border plant, growing 3 feet high, with numerous fine white flowers, it should be in every garden, *A. japonica*, has growth and habit similar to the above, but with rose-coloured flowers. *A. sylvestris*, the "Snow-drop" Anemone is a pretty white border variety, and the French and St Brigid strains must not be forgotten. *A. pulsatilla* the "Pasque Flower" should be included.

**ANTHEMIS BIEBERSTEINI**, a very useful plant for walls, being a strong grower, and forming good tufts of silvery foliage.

**ANTHERICUM LILIAGO**, or St. Bernard's Lily, a good border plant of easy culture, bearing fine spikes of pure white flowers; about 2 feet high. *A. liliastrum major* is also a fine border plant with white flowers; both bloom during May and June.

**ANTHYLLIS ATRORUBENS**. A most useful plant for a dry bank; it bears heads of dark crimson flowers somewhat resembling a large clover.

**AQUILEGIA** A useful class of plants, better known as columbines. They vary in colour and include whites, yellows, blues and purples. Amongst the best and most useful are *A. chrysantha*, yellow; *A. vulgaris alba*, white, *A. glandulosa*, a fine blue-and-white. These varieties are perfectly hardy, and do well in almost any position; height 2 feet.

**ARTEMISIA**. *A. laciflora* has masses of creamy white flowers in autumn and is a good foil for more brilliant flowers.

**ARMERIA PLANTAGINEA ROSEA** (a variety of the Sea Pink), is a very effective plant of dwarf habit, with fine heads of rose-coloured flowers; it grows 12 inches high, and blooms from May to the end of July. *A. p. alba* is a white-flowered variety. *A. cephalotes grandiflora*, bears large deep red heads of flowers; height 2 feet.

**ASPHODELUS RAMOSUS** bears a fine bold spike of white flowers; it thrives in almost any kind of soil, and should be in every border; height 2 feet.

**ASTER OR MICHAELMAS DAISY** These are indispensable as they continue to bloom until the frost comes and blackens them. There are a large number of varieties of which the best are: *A. acris*, 3—4 ft, pale blue and early; *A. cordifolius* Ideal, 2 ft., small flower, blue, *A. ericoides*, small white flower, 3 ft., *A. Hon. E. Gibbs*, small lavender flower, 3 ft., *A. amellus*; King George, large blue flowers, 3 ft.; *A. a. Perry's Favourite*, pink flowers, 3 ft.; *A. novæ anglæ* Ryecroft Pink, tall-growing pink variety. *A. n-a* Lil Faudel, pink, 5 ft.; *A. novæ-belgii* Antwerp, rose-pink, 3½ ft.; *A. n.-b.* Beauty of Colwall, double lavender, 4 ft.; *A. n.-b.* Brussels, large pale lavender, 4 ft.; *A. n.-b.* Climax, clear light blue, 5 ft; *A. n.-b.* Mons, deep rose, 3½ ft; *A. n.-b.* Sam Banham, white, 5 ft.

**ASTILBE**, see **SPIRÆA**.

**AUBRIETIA**. There are many varieties, from which may be selected *A. Leichtlini*, a fine clear rose; *A. purpurea*, *A. Firefly*, deep red; *A. Moerheimi*, large pale rose; and



## HARDY FLOWERING PERENNIALS FOR BEDS, BORDERS, &c.

*Hardy  
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Dr. Mules, rich purple All do well on a dry bank in ordinary soil. For rockwork or planting on rough dwarf walls in conjunction with Alyssums and White Rock they are lovely.

**BOCCONIA CORDATA** An effective foliage plant of strong growth, bearing buff-coloured spikes of flowers. Requires ample space, and is admirable for massing near water; height 5 to 6 feet

**CAMPANULA**, of which there are many varieties most serviceable as border and wall plants; the best are *C. persicifolia alba grandiflora*, and *P. humosa* with semi-double blue flowers; *C. glomerata dahurica*, is purple and grows 18 inches high. These varieties flower about July, lasting to the latter part of August. *C. macrantha* has a good effect when planted in woods, etc.; throwing up its tall spikes of blue flowers, reaching a height of five feet, it is of very easy growth and succeeds almost everywhere. *C. marginata*, a large white margined with blue, and *Moerheimi*, a semi-double white, are also excellent. Amongst the dwarf Campanulas the following are all good free growers.—*C. G. F. Wilson*, a fine shade of purple, and a very free bloomer, *C. carpatica alba*, white; *C. turbinata*, light blue, and *C. t. White Star*. *C. bavarica*, blue, an exceptionally free grower; and *C. pusilla* and *C. p. alba*, *C. pulla*, deep purple, *C. pulloides* and *C. Hostii alba*, white, should also find a place.

**CENTAUREA**, or Knapweed. Amongst the finest of perennials is *C. montana rubra*, with numerous large feathery rose-coloured flowers, 2 feet high; *C. ruthenica*, a pale yellow variety with fine foliage, and *C. macrocephala*, a fine plant growing to a height of 5 feet, with large handsome bright yellow flowers, it is of rather coarse growth, but looks well at the back of a border, where it can have plenty of room. These varieties are particularly useful for cutting for house and table decoration.

**CHEIRANTHUS ALPINUS**, or Alpine Wallflower, is an exceedingly pretty plant, bearing a profusion of bright yellow flowers in May and June; height 6 inches.

**CHRYSANTHEMUM MAXIMUM**. *C. Duchess of Abercorn*, *C. Queen Alexandra* and *C. imbricatum*, are all showy, large-flowering varieties of the common field daisy. *C. m. Mayfield Giant*, large and free

**CIMICIFUGA RACEMOSA** has foliage resembling the *Spiræas*, and bears feathery spikes of white flowers; height 3 feet

**CISTUS**, Rock Rose, is effective when planted on dry banks or rockeries. There are several free-flowering varieties of various shades of colour. A few of the best are *C. florentinus*, a large white-flowering variety, very free; *C. algarvensis*, a small-leaved variety with bright yellow flowers and a dark ring round the centre of the flower, and *C. formosus*, yellow. *C. crispus* and its varieties should be included.

**COREOPSIS GRANDIFLORA**. A splendid border plant with numerous large yellow flowers, very useful for cutting purposes. It is certainly the best variety in cultivation. It is of very free habit and blooms all the summer, height 2½ feet.

**CRAMBE CORDIFOLIA**, a handsome plant bearing large spikes of white flowers in the same manner as *Gypsophila*. It should be planted in masses, and given plenty of space as it grows 6 feet high.

**DELPHINIUM**, or perennial larkspur, of which there are many varieties of all shades of white, blue and purple, makes a splendid display and needs very little attention, remaining in flower for about two months; height 3 to 6 feet. No border of hardy perennials can be complete without them.

**DIANTHUS**, the pink. A large family, very useful for walls and rock gardens, a few of the best are *D. alpinus*, with large deep rose-coloured flowers; *D. neglectus*, a deep rose, *D. integer*, pure white deeply fringed, and several other varieties too numerous to mention. *D. barbatus* is the Sweet William.

## HARDY FLOWERING PERENNIALS FOR BEDS, BORDERS, &c.

**DICTAMNUS FRAXINELLA** A well-known plant that should have a place in every border ; *Hardy Perennials.* it bears spikes of flowers of a pale rosy pink with rather a curious scent ; is of free habit and likes good rich soil. 3 feet.

**DORONICUM EXCELSUM**, or Leopard's Bane, is a plant too well known to need much description, colour bright yellow, and flowers in early spring and far into the summer. It should be in every garden, height  $2\frac{1}{2}$  to 3 feet.

**EPIMEDIUM PINNATUM**, is a very excellent dwarf yellow-flowering plant, the foliage of which is also very pretty and useful for cutting ; it will grow in shade, flowering about May

**ERIGERON SPECIOSUS SUPERBUS** and **E. s. GRANDIFLORUS**, bear clusters of large mauve flowers from June to September, height from 2 to 3 feet. **E. s. Asa Gray** and **E. s. Quakeress** are two good new varieties. An excellent border plant.

**ERYNGIUM ALPINUM**, or Sea Holly, is a well-known plant, and one which should be included in every collection, it is a strong grower, succeeding in any good garden soil, and flowering from June to September, height 3 feet.

**FUNKIA**, of which there are many varieties, make fine foliage plants, two of the best are **F. Fortunei cærulea** and **F. undulata marginata**, the former being of a fine glaucous colour, and the latter beautifully margined with white. These will succeed in partial shade.



FIG 439 —GIANT PARSNIP UNDER TREES (see page 351)

**GALEGA OFFICINALIS ALBA**, or

Goat's Rue, an excellent plant for the border, bearing beautiful white pea-shaped flowers, which last well when cut. It is about 4 to 5 feet in height, and does well in any soil. **G. Hartlandii**, strong growing blue variety and **G. Niobe**, the best white, should be included.

**GENTIANA.** **G. acaulis** the gentianella should be tried in stony soil in rock gardens or fronting a border ; in a cooler situation, room should certainly be found for the beautiful **G. Farrerii**, which has an abundance of clear, pale blue flowers in autumn.

**GERANIUM** **G. ibericum** and **G. Wallachianum** are useful border plants with large blue flowers.

**GEUM COCCINEUM PLENUM**, and **G. HELDRIECHII** are fine border plants with rich orange-scarlet flowers. **G. Mrs Bradshaw**, scarlet, **G. Lady Strathedin**, yellow ; 2 feet in height two of the most effective plants for the herbaceous border.

**GILLENIA TRIFOLIATA**, a very graceful and pretty plant bearing slender white flowers ; it is useful for moist situations, and should be planted in large patches.

**GYPSOPHILA PANICULATA**, although generally grown for cutting, is a white mist-like flower very useful when used in contrast with strong colours, height  $1\frac{1}{2}$  feet.

**HELENIUM.** This genus bears masses of beautiful bright yellow flowers, which last well when cut. Amongst the most useful varieties are **H. pumilum**, about 2 feet high ; **H. grandiflorum**, 3 to 4 feet, and **H. autumnale**, which flowers more in clusters and lasts late into autumn, about 6 to 7 feet in height. **H. Riverton Gem** with yellow flowers, striped bronze, is a showy variety.

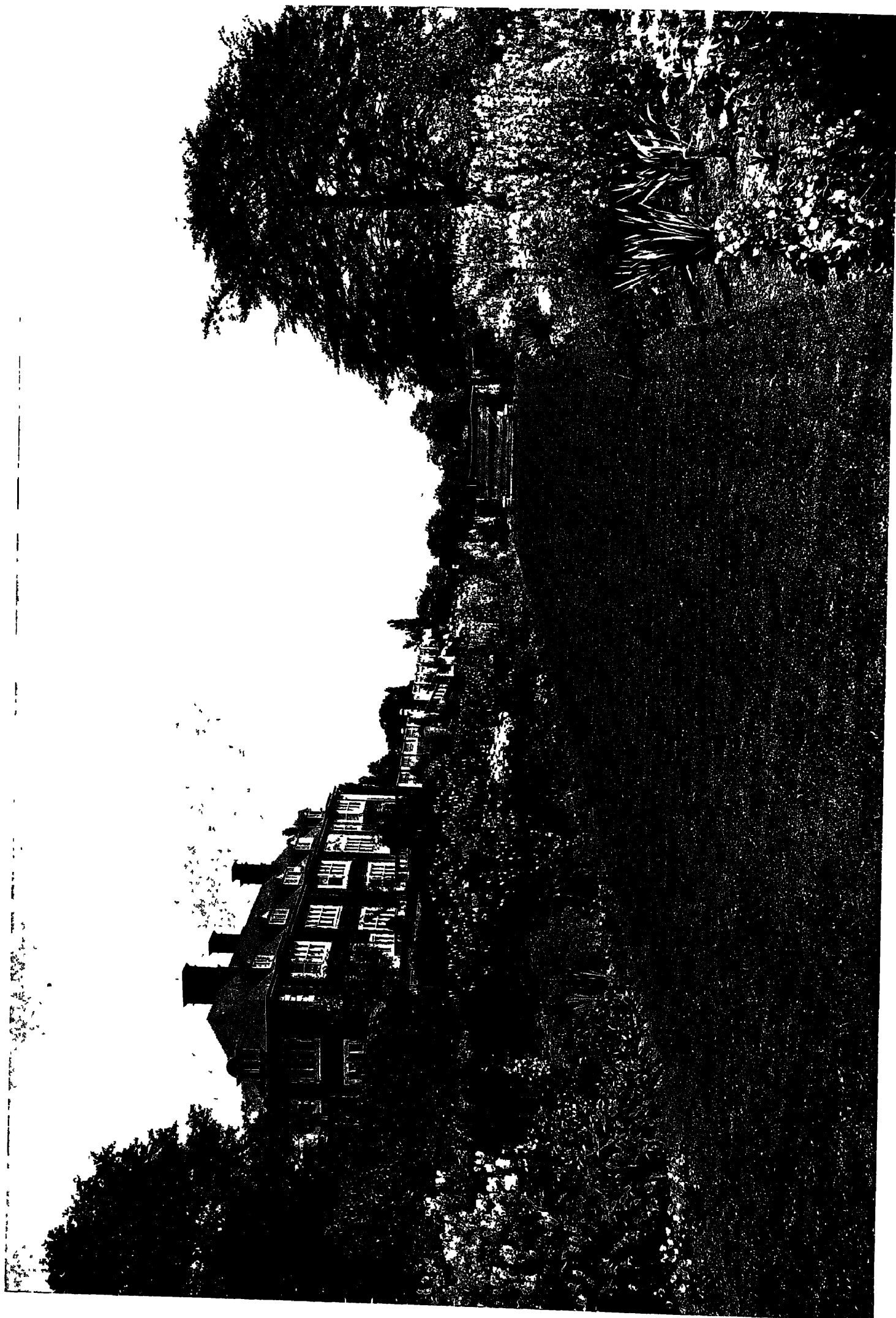


FIG. 440.—HERBACEOUS BORDERS AT DUNCHURCH LODGE.

## HARDY FLOWERING PERENNIALS FOR BEDS, BORDERS, &c.

- HELIANTHEMUM**, or Sun Rose No rock or wall garden is complete without a selection of these plants, they are perfectly hardy, and make a fine show They vary in colour from white to deep red The following are good · *H. venustum*, fine red ; *H. tomentosum*, yellow , *H. The Pearl*, white ; *H. Mrs. Sydney Smith*, terra-cotta ; *H. Mrs. Earle*, double red , *H. roseum*, pink. *H. Coccineum*, single scarlet , magnificent with large single terra-cotta flowers , *Mrs. Croft*, single pink , *Mrs. Earle dbl. crimson* , *Mrs. S. Smith*, single bright red , *roseum*, single salmon-rose and *venustum*, single scarlet ; are all good. They thrive well in a dry position in ordinary soil
- HELIANTHUS**, make a fine show towards autumn, when flowers are getting scarce The most distinguished of the several kinds are *H. doronicoides*, a very free-flowering single, and *H. Soleil d'Or*, a double variety, with fine quilled flowers. *H. Miss Mellish* is a fine form
- HELLEBORUS**, or Christmas Rose There are a great many varieties of this genus, but *H. niger major* is one of the freest flowering sorts, bearing fine pure white blossoms. It is very useful for cutting purposes, and does well in a rather shady position. Include also the varieties of *H. orientalis*, the Lenten Rose. These are very strong-growing plants and should be planted sparingly to avoid overcrowding more delicate subjects.
- HEMEROCALLIS**, or Day Lily. There are several varieties of this genus. The showiest are *H. disticha plena*, flowers a deep orange, and fine border plant ; *H. Thunbergi*, pale yellow blooms, and *H. flava*, with lemon-coloured flowers, bell-shaped and very numerous.
- HEUCHERA SANGUINEA** bears numerous slender spikes of pretty scarlet flowers, which when cut are very useful for decorative purposes, looking exceptionally well by artificial light It is of easy growth , height  $2\frac{1}{2}$  feet. *H. s. grandiflora* is a stronger grower.
- HERACLEUM GIGANTEUM**, or the Giant Parsnip, is a valuable perennial for planting on the outskirts of the wild garden, or under the drip of trees, as in illustration No. 439 It is best raised from seed sown in March.
- HOLLYHOCK**. No garden can be said to be complete without Hollyhocks ; they are indeed indispensable, showing to great advantage in almost any position, though best with a background of wall or hedge. They should be found in every border, especially those on the terrace Single varieties are as effective as the choicer and more expensive double ones.
- IBERIS**, or Perennial Candytuft. *I. correæfolia* is one of the finest. It has fine large pure white flowers, and comes into bloom when the commoner varieties are over. This is an excellent plant for growing in the rock garden or on the tops of walls.
- INULA GLANDULOSA**, a useful plant, 2 to  $2\frac{1}{2}$  feet in height ; bears fine yellow flowers in June and July.
- IRIS** Almost everyone who has seen a swamp knows the broad, succulent green blades of the flag, or yellow-flowered Iris, and the tall stem or sheath from which they spring The Iris *Kämpferi*, the sacred flower of Japan, can be similarly recognized, but the flowers are of various shades of white, azure and dark blue, and dark blue and blue purple, attaining under good cultivation a diameter of from 6 to 12 inches. If allowed a fair quantity of bog earth or fatty loam, to retain moisture, they succeed well in the border, they are also amongst the most valuable plants for the margins of ornamental waters. *I. sibirica* is another effective plant for moist places, having grass-like foliage and numerous pale blue flowers streaked with white. The well-known flag Iris, *I. germanica*, is another section, which may be planted in almost any soil or situation All the colours found amongst other Iris are to be found in this class In the autumn, batches of the bulbous Spanish and English Iris, both of which are equally beautiful, should be planted in masses for flowering the following June
- LAVENDER**. See Flowering Shrubs.

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Perennials.*

## HARDY FLOWERING PERENNIALS FOR BEDS, BORDERS, &c

### Hardy Perennials.

**LEUCOJUM VERNUM** (Spring Snowflake), has pretty white flowers dotted with green, resembling snowdrops. *L. æstivum* is similar to *L. vernum*, but taller in habit. In foliage and flower these varieties are effective throughout the summer months; height 18 inches.

**LIATRIS** *L. spicata* and *L. pycnostachya* have bold spikes of purple flowers and are good border plants.

**LILIUM.** There are many varieties of lilies which make a fine show in the border. The following are all good. *L. candidum*, the old garden or Madonna Lily, which has pure white flowers, should find a place in every border where the soil is moderately



FIG. 441—LAVENDER UNDER THE CASEMENT

light. *L. croceum*, or Orange Lily, is a fine old lily, bearing six to eight orange-coloured flowers in clusters, on stems varying from 4 to 5 feet in height. *L. chalcedonicum*, Turk's Cap, has rich scarlet flowers in clusters of four to six on one stem, it is of easy culture, and is one of the finest varieties. There are very few hardy flowers which are so effective. *L. Humboldti* is a tall-growing variety, bearing numerous flowers of a pretty golden yellow with dark spots, and is of easy culture. *L. tigrinum splendens*, the Tiger Lily, is one of the most useful for borders, a free flowerer, the colour being orange scarlet with numerous black spots. *L. Martagon* has dark purple flowers, borne on stems 4 to 5 feet in height, and is of good habit. *L. M. album*, a very fine white variety of the preceding, of handsome appearance, should

be in every border. *L. testaceum* is a tall-growing variety with clusters of cinnamon coloured flowers, and easy to cultivate. *L. pardalinum* and *L. speciosum* should also be grown. *L. umbellatum* is a good easily grown orange variety and amongst small growing shrubs, in good deep soil or in the herbaceous border, the *auratum* and *lancifolium* Lilies will thrive well.

**LITHOSPERMUM PROSTRATUM**, for rockwork, is as fine a plant as could be wished for. In colour it rivals the beautiful *Gentiana verna*, but is easier to grow, and thrives best in a sunny position; grown in a good sand loam mixed with a little sandstone, if procurable; *L. p.* "Heavenly Blue," is a pretty variety with paler flowers.

**LUPINUS**, Lupine. The white and blue varieties make a fine show, growing to a height of about 3 feet, all are very free-flowering. There are many new hybrids enumerated in nurserymen's catalogues, which are worthy of cultivation.

**LYCHNIS.** Amongst this class of plants I should recommend *L. chalcedonica*, which bears handsome scarlet flowers from July to the beginning of September; height 3 feet; and *L. viscaria splendens plena*, a dwarf variety, very profuse flowering, of a rosy pink, flowering in the months of June and July.

## HARDY FLOWERING PERENNIALS FOR BEDS, BORDERS, &c.

- LYTHRUM ROSEUM, a fine showy plant, very free in habit; the flower spikes are of a deep rose, and often attain to a height of 4 to 5 feet. It is also a very useful plant for marshy ground, or by the margins of lakes or streams *Hardy Perennials.*
- MALVA MOSCHATA ALBA. An effective border plant with clusters of pretty white flowers. It will grow in almost any soil; height  $2\frac{1}{2}$  to 3 feet.
- MERTENSIA SIBIRICA, a pretty border plant with lovely pale blue pendant flowers, height  $1\frac{1}{2}$  feet.
- MONARDA DIDYMA, or BERGAMOT, a showy plant, with bright red flowers, growing about  $2\frac{1}{2}$  feet high; blooms in the later part of July, and lasts almost to the end of September.
- MONTBRETIA. A most useful class of plants with ornamental grass-like foliage. The flower spikes, in many various shades of colour, resemble gladioli, but are on a much smaller scale. *M. crocosmiflora*, with orange-scarlet flowers, is one of the best for the border, and *M. elegans*, a pretty shaded yellow, and *M. Fairy Star*, a rich orange with yellow centre, are also very effective. The Montbretias grow and succeed almost anywhere, but prefer a fairly light soil. There are now quite a number of hybrid varieties reared in France, some of which are very charming.
- NARCISSUS. Amongst the large-flowered or trumpet section, some of the best are *N. Empress*, a beautiful variety, with rich golden yellow trumpet and large white perianth; *N. Emperor*, a fine effective rich yellow; *N. Golden Spur*, a very showy variety, of a rich golden yellow, the trumpet being broad and reflexed, *King Alfred*, immense yellow; *Glory of Leiden*, a fine bicolour; *Mme de Graaf*, all white; *N. Telamonius plenus* is the old-fashioned double daffodil, and still one of the most useful. A good medium flowered variety is *N. Barri conspicuus*, which is one of the finest of this class, having a broad yellow perianth edged with deep orange; very showy. In this class must be included *Albatross*, *Flora Wilson*, and *Red Chief*, *N. incomparabilis giganteus*, *Sir Watkin*, a very fine variety with sulphur perianth; *N. incomparabilis Cynosure*, has a large perianth, sulphury white; also *Gloria Mundi*, *Lucifer* and *Will Scarlet*; *N. Leedsii*, *Mrs. Langtry*, a pretty variety with broad white perianth and a large white cup, also *Duchess of Westminster*, *White Lady* and *Lord Kitchener*. *N. C. J. Backhouse*, a distinct variety with broad white perianth and yellow cup, *N. triandrus albus*, a very small flower resembling the cyclamen in shape and creamy white in colour, very pretty; *N. Orange Phoenix*, a showy variety with large white flowers streaked with orange, commonly known as "eggs and bacon". Amongst the short cup varieties may be named *N. biflorus*, a free-flowering variety, bearing two flowers on one stalk, of a creamy white colour; *N. poeticus ornatus*, a fine free-flowering variety, bearing flowers with a broad perianth and rich orange cup; *N. p. plenus* is a double white variety, very sweet-scented and useful for cutting, but rather a shy bloomer. Amongst this class must be included *King Edward VII*, *Horace* and *Glory of Lisse*. These do not by any means exhaust the many varieties of *Narcissus*, but will be found to contain a nice selection which might form the nucleus for a larger collection.
- NEPETA (Catmint) An invaluable plant for massing in front of borders, grey foliage and mauve flowers make *N. Mussini* indispensable.
- MECONOPSIS *M. cambrica* is the pretty yellow Welsh Poppy. The variety with double flowers is a good border plant.
- ÆNOTHERA FRASERI, *Æ. macrocarpa*, and *Æ. Youngi* are all very useful yellow-flowered border plants. *Ænothera biennis* is the Evening Primrose.
- ORNITHOGALUM NUTANS is well adapted to the wild garden; it flourishes and increases rapidly. The flowers are of a whitish green, and look very pretty in a cluster. *O. umbellatum*, *Star of Bethlehem*, comparatively unknown under its formidable

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botanical name, has clusters of five or six pure white flowers on a short stem. The bulbs should be planted in the autumn, and when once established they should not be disturbed

OROBUS VERNUS, one of the Vetches, makes a pretty border plant with purple flowers, blooming in early spring. There are several other varieties, but this is one of the best; height  $2\frac{1}{2}$  feet.

PAPAVER ORIENTALIS, or Oriental Poppies, make a fine show, and may be planted in almost any position where bright masses of colour are required. Colour, flaming scarlet, height  $2\frac{1}{2}$  feet. There are now many varieties of excellent pink shades.

PÆONIA, Pæony. No garden would be complete without some of these; they are easy of culture and make a brilliant show. As there are a great number of varieties it is a difficult matter to decide which are the best, but the following will be found to be good and reliable—merits which cannot be claimed for a number of hybrids that are advertised: Felix Crousse, carmine; Lady Anne, silver pink; Lord Derby, purple crimson, and Marie Lemoine, a pure double white, Adolphe Rousseau, semi-double dark velvet-red; Albert Crousse, soft shell-pink; Alice Crousse, violet-rose with pale centre, Claire Dubois, satiny-pink; Delicatissima, clear pink, Edalis Superba, magnificent pink; Fastruanana, white, very free; festiva maxima, excellent white; L. Eclatante, deep velvet-crimson; Reevesiana plena, soft rosy flesh; rubra triumphans, semi-double, dark crimson.

PHLOX. An indispensable class of plants of various colours and easy culture, no border being complete without them. Amongst the early-flowering varieties I should recommend Purple Emperor, Lady Napier, A M'Kinnon and Snowdon. For a selection of late-flowering varieties. White—Freifraulein von Lassburg, Pyramide, Tapis blanc, Frau. Ant. Buchner. White with red eye include—Delight, Flora Hornung, Josephine Gerbeaux. Mauve—Charles Flahault, E. Danzanvilliers, Madame Neera and A. Mercie. Blue and purple—Eclaireur, Iris, Le Mahdi, Dr. Charcot. Pink and Salmon—General van Heutz, Molière, Neptune, Wm. Robinson, Selma, Elizabeth Campbell, Rijnstroom, Gruppen Konigin and Loki. Red—Coquelicot, Embrasement, Etna, Dr. Königschoffer, Baron von Dedem, George A. Strohlein, September Glow, Thor.

PHYSALIS FRANCHETI, a variety of Winter Cherry; it makes a fine show in autumn, having a bright crimson globe-shaped pod in which the fruit is enclosed; it is very useful for cutting, lasting for many weeks; height 2 feet.

PINKS. Of all the beautiful edging plants none are so good as the white pink, which even when not in flower, forms a good silvery margin. The two best varieties are Mrs. Sinkins and Her Majesty

POLEMONIUM, or Jacob's Ladder, is a well-known old-fashioned plant, which should be in every border. P. Richardsoni is a very pretty pale blue, and flowers for fully three months. The white form, P. Richardsoni album, is as free-flowering as the blue.

POLYGONATUM MULTIFORUM, more familiar under the name of Solomon's Seal. The white bell-shaped flowers, suspended from beneath the long, shapely, symmetrically divided frond-leaves, or fronds, are effective in the border or in the wild garden. This is a good plant for shade.

POLYGONUM CUSPIDATUM. The knot grasses are handsome plants for the wild garden and places where they have plenty of room for development, often growing to a height of 8 feet. They thrive under trees, but should not be planted where they will be likely to smother small plants, as they propagate rapidly, and soon cover a large area. P. sachaliense is another variety worth growing. P. amplexicaule is a red flowered border variety and P. Brunonis and P. vacciniifolium are dwarfs and excellent for wall plants.



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POTENTILLA. There is a large family of these The three varieties which are the *Hardy Perennials.*  
most distinct are *P. californica*, bright double yellow; *P. variabilis*, double orange and yellow; and *P. purpurea plena*. These will flower well from July to the latter part of August; height  $1\frac{1}{2}$  to 2 feet. *P. Gibson's Scarlet*, good single and *P. Miss Willmott*, single pink; *P. recta macrantha*, a very free-flowering yellow.

PRIMROSE. Our beloved hedgerow companion, and the probable progenitor of all the many different varieties, has but to be mentioned to ensure it a hearty welcome to our wild gardens The double white, double yellow, double mauve, and single varieties all do well in a nice cool, shady place, and will make quite a blaze of colour. G F. Wilson is the well-known blue variety; Miss Massey, crimson, and Wanda a new plant with numerous purple flowers.

PULMONARIA AZUREA (Lungwort), a fine blue, free-flowering variety, which is particularly useful for moist positions.

PYRETHRUM This will do well in almost any garden. There are now a great many varieties, both double and single, both of which forms are very useful for cutting purposes as well as for border decorations They have a great range in colour, and succeed in almost any soil or situation.



FIG 442 —POLYGONUM CUSPIDATUM ON EDGE OF ROCK GARDEN

RANUNCULUS ACONITIFOLIUS PLENUS, or Fair Maids

of France, does well either for border or bog garden, and bears clusters of double white flowers, which are also useful for cutting

RHEUM. The ornamental character of the foliage of these plants should be sufficient commendation to secure them a place in any garden. One of the best is *R. sanguineum*, the foliage of which, when young, is a beautiful red, the flower spike being of the same colour, and often attains a height of ten feet.

RUDBECKIA NEWMANII, Newman's dwarf sunflower, colour bright yellow with a dark centre, flowering late into autumn; height, 18 inches. *R. laciniata plena*, or Golden Glow, should also have a place in every garden, it resembles a double sunflower, but has a much finer substance; grows 5 to 6 feet high

SALVIA *S. Greggii* and *S. Grahamii*, two beautiful salvias with red flowers; not very hardy, but if grown against a south wall and slightly protected in winter they give a lovely show of flowers throughout the summer.

SANTOLINA (French Lavender). *S. incana* and *S. chamaecyparis* are useful for their grey foliage and yellow flowers, and *S. viridis* makes an attractive green bush.

SAPONARIA SPLENDIDISSIMA. This plant is a great acquisition for wall or rock garden; forming carpets of beautiful rose-coloured flowers.

SAXIFRAGA, an extensive class of Alpines of acknowledged beauty, carpeting large spaces effectively. Amongst the best are *S. Burseriana*, which flowers very early and forms nice silvery tufts with pretty pure white flowers borne singly on stalks about 2



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*Hardy  
Perennials.*

inches long, and has a very pleasing effect ; *S. luteo-purpurea*, or Frederick Auguste, forms beautiful green tufts with pale yellow flowers , *S. cochlearis*, a crested variety forming nice tufts, the flowers of which are a beautiful white ; *S. Cotyledon*, a very free variety of easy culture, forming silvery rosettes, the flower spikes often attaining a height of 18 inches , of a spreading nature and a beautiful white, and will succeed in almost any soil *S. McNabiana longifolia*, *S. aizoon lantoscana*, and *S. cotyledon pyramidalis* are also good Some of the mossy *Saxifragas* are very useful for rather shaded positions, making fine green carpets. *S. Wallacei*, a beautiful form, having large pure white flowers ; *S. atropurpurea*, with pretty rose-coloured flowers, and *S. hypnoides*, will be found very useful varieties *S. Guildford Seedling*, red ; *S. decipiens grandiflora*, red ; *S. Bathoniensis*, crimson, are also good mossy varieties. *S. palmata* and *S. cordifolia* (syn. *Megasea cordifolia*) are two strong growing effective varieties, the former being very handsome in the wild garden and near water

**SCABIOSA.** *S. caucasica* and its hybrids are beautiful in the border, having pale blue flowers.

**SCILLA.** *S. campanulata* and *S. campanulata alba* are both effective varieties for the border, throwing up large masses of flowers year by year. As for cultivation, they simply require planting and leaving alone. They are very useful for partial shade.

**SEDUM.** These well-known and most desirable rock plants will grow in almost any soil or position. The best are *S. elegans*, forming spiral tufts of foliage with bright yellow flowers.

**SEMPERVIVUM** Lovers of quaint old cottages will not fail to recognise these plants, more familiarly known as Houseleek , the scanty sustenance they obtain in the crevices of the rough-cast, or in the rugged projections of stone tabling, shows the ease with which they can be cultivated. *S. arachnoideum* forms pretty rosettes, covered at the top with a white down resembling a spider-web. *S. triste* forms large rosettes of deep purple. It is a useful plant for edging purposes *S. californicum*, about the largest variety of all, forms rosettes of a glaucous colour, the tips of the leaves being a dull brown.

**SILENE ACAULIS** is one of the best plants for a wall garden , it thrives in dry positions and forms dense cushions of green foliage, with pink flowers

**SOLIDAGO**, or golden rod, of a coarse habit, is thoroughly well suited to the wild garden, where its tall spikes of bright yellow show to advantage.

**SPIRÆA.** Amongst these *S. aruncus plumosus* takes the lead for border work, it attains a height of 4 to 5 feet, and has a flower spike of a fine creamy white. *S. filipendula* fl. pl, is a pretty low growing variety with double flowers, and amongst more recent varieties, the pink, *Queen Alexandra* and *Peach Blossom* must be included. Similar in habit and appearance to the Spiræas are the *Astilbes*, being of a much dwarfer habit ; the flowers last well when cut. *S. palmata*, pink, and *S. venusta*, rose, are also very showy. *S. Davidi*, has noble spikes of rose-purple flowers, 4 to 5 feet in height , it is specially suited for planting near ornamental waters. Other varieties are *A. Arendsi*, *Salmon Queen*, *A. Grandis*, white ; *A. Princess Juliana*, deep pink and *A. Thunbergii Moerheimii*.

**SYMPHYTUM CAUCASICUM**, or borage plant, which makes a showy addition to the wild garden, is a free flowerer, with fine bright blue flowers early in the year.

**TELEKIA SPECIOSA**, is a tall-growing, glaucous-leaved plant, with large spikes of yellow flowers , very suitable for rough places.

**THALICTRUM AQUILEGIFOLIUM**, a useful border plant, with foliage resembling the aquilegia ; it grows about 4 feet high, with fine feathery heads of white flowers. *T. purpureum*, purple, is also a very fine showy perennial with pretty foliage and white heads of flowers *T. flavum* is a fine tall-growing yellow variety, with glaucous foliage.



FIG. 443.—CAMPANULA AND YUCCA AT SEDGWICK.

*T. dipterocarpum*, a variety from China, even if not one of the hardiest, should be grown for its exquisite small purple flowers and citron yellow anthers.

*Hardy  
Perennials*

**TIARELLA** *T. cordifolia* with innumerable spikes of tiny white flowers and pretty heart-shaped leaves is good for shady positions.

**TRILLIUM GRANDIFLORUM**, or American wood lily, when once established, makes a charming addition to the border. It has a dwarf habit, bears pure white lily-like flowers, and likes rather a moist, shady position. The habit of growth and general character of the plant is very similar to the Christmas rose.

**TROLLIUS** (Globe Flower) is a splendid border plant with large globular orange flowers.

*T. japonicus* "Excelsior" and *T.* "Fire Globe" should be included, together with *T. hybridus* "Goldquette."

**TRITOMA** or Kniphofia, the "Red Hot Poker," is an admirable plant in the autumn, both for mixed borders or planted by itself in the grass. Probably *T. uvaria grandiflora* is the finest and most useful, as well as the hardiest and freest blooming variety.

**TULIP.** Having regard to the extreme beauty and comparative hardiness of florists' Tulips, it is difficult to understand the way they have been neglected. These are not to be confounded with the varieties which are imported so largely from Holland; it is the old garden tulip which is here referred to. All the varieties may be used to great advantage in the borders; there are many forms, with a wide range of colours, and can now be obtained from any nurseryman at moderate prices. They may be allowed to remain undisturbed in the borders from year to year.

**VERATRUM ALBUM** and *V. NIGRUM* are fine foliaged plants, excellent for rock or wall gardens or borders.

## HARDY FLOWERING PERENNIALS FOR BEDS, BORDERS, &c.

*Hardy  
Perennials.*

VERBASCUM OLYMPICUM, is conspicuous for its large white rosettes of foliage, and clear, pretty, yellow spike, varying from 6 to 12 feet high V. densiflorum, strong yellow, V. Chaixii, short stems with pale yellow flowers; V. caledonica with purple flowers. VERONICA SAXATILIS and V. SAXATILIS ALBA, two very useful plants of a prostrate habit, and very showy, which are perfectly hardy, and do well in good sandy loam V. rupestris is another prostrate variety with fine bright blue flowers V. epacrioides, lycopodioides, and V. sabeonioides are New Zealand varieties which are splendid for the rock or wall garden. V. amethystina is a showy plant with spikes of bright blue flowers, eighteen inches high, flowering in June and July. Another good border variety is V. longifolia subsessilis, which has large spikes of deep blue flowers, and grows to two feet high

## AQUATIC AND SUB-AQUATIC PLANTS FOR PLANTING IN PONDS AND BY THE MARGINS OF STREAMS

*Aquatic  
plants.*

Much more attention is now paid to this class of plants than was formerly the case, water and bog gardens forming a part of many garden schemes This is not to be wondered at since Marliac has reared such superb water lilies, and Japan has supplied us with such very charming varieties of their sacred lilies (Iris Kämpferi) Apart from these, however, there is a sufficient number of beautiful aquatics and bog plants to make a water garden desirable, whilst in many situations their use allows of spaces of ground which are uninteresting, and even objectionable, being converted into spots full of interest.

ACORUS CALAMUS, or sweet-scented rush, the foliage of which resembles an Iris and is evergreen, and when broken emits a sweet scent, it does well in shallow water or in very wet ground on the margins of ponds, and is perfectly hardy

ALISMA NATANS is a pretty little white-flowering subject for shallow water. A. plantago has handsome spikes of pale rose-coloured flowers, 2 to 3 feet high

APONOGETON DISTACHYON, or Cape Pond Weed, often called Water Hawthorn from its beautiful fragrance, is one of the easiest water plants to cultivate It bears numberless curiously shaped white flowers, relieved on the inside with small black dots, is hardy, and very free in habit

ASPHODELUS LUTEUS, a graceful plant for a moist position, has grass-like foliage and fine large spikes of bright yellow flowers, attaining a height of 3 feet.

BUTOMUS UMBELLATUS has reed-like foliage, with pretty umbels of white shaded pink flowers, and thrives well in shallow water.

CALLA PALUSTRIS (Bog Arum) is very useful for planting in shallow water, and bears calla-like flowers on green spathes.

CALTHA PALUSTRIS MONSTROSA PLENA, a double variety of the marsh marigold, bears full, large, rich yellow flowers, making a very beautiful margin to still water. C. polypetala is a strong growing variety with handsome foliage.

CYPRIPEDIUM SPECTABILE (the Moccasin flower), from N. America, the finest hardy variety known, succeeds in a well-drained moist position, and likes peat. The flower stems vary in length from 6 to 12 inches, with fine large white and shaded pink flowers. C. calceolus, the British form, though now very scarce in the country, has a flower of a fine shade of yellow, with long dark-brown petals. It does well in a good heavy soil with limestone, and likes a rather shaded place.

CYPERUS LONGUS is a fine foliage plant for marshy places

ELYMUS GLAUCUS is a very ornamental grass, and when planted in tufts makes a happy break to the margin of a stream, especially when the surroundings have a tendency to appear too tangled or disordered. Another beautiful grass is Carex pendula, a fine variety for growing in marshy places or under trees.

## HARDY FLOWERING PERENNIALS FOR BEDS, BORDERS, &c.

FERNS. No bog garden is complete without a few ferns. The well-known *Osmunda regalis*, or Royal fern, is by general consent the finest; but other good varieties are *Onoclea sensibilis*, an American fern of easy growth which likes a shaded peaty position, and *Struthiopteris germanica*, or ostrich feather fern, a fine large-growing variety, which is well worthy of a place; it is of very free habit. *Aquatic plants.*

GUNNERA SCABRA has large handsome foliage, with leaves sometimes 3 to 4 feet across, and requires plenty of space and a position near, but not in, the water.

HOTTONIA PALUSTRIS, or water violet, has foliage resembling a fern, and throws up a fine spike of flower, white shaded with pink, and about 6 to 12 inches in height, growing in about 2 feet of water.

LYSIMACHIA CLETHROIDES, with spikes of pretty white flowers, is an excellent plant for marshy places; height 2½ feet.

LYTHRUM ROSEUM. A very showy plant with spikes of rich rosy crimson, which does well in marshy ground; height 3 feet.

MARSH MARIGOLD, both double and single varieties, are most useful for margins of water. (See *Caltha*)

MENYANTHES TRIFOLIATA, or Buckbean, is a very free-growing plant with fine sweet white to pink flowers, useful for shallow water.

NYMPHÆA (Water Lily). A few of the hardiest are *N. Marliacea chromatella*, a beautiful yellow with finely marbled foliage; *N. Robinsoni*, a large-flowering variety with rich vermilion-coloured flowers of very free habit; and *N. alba rosea*, a fine variety, the flowers rose coloured, equal in size to the ordinary white water lily. No sheet of water should be without *N. alba*, the freest-flowering variety of all, the abundant quantity of its bloom making quite a picture. *N. Nuphar lutea*, the common yellow variety, is one that could not easily be dispensed with, the foliage in itself being a recommendation. Other beautiful varieties are *N. Gladstoniana*, the largest, white; *N. Marliacea carnea*, flesh-coloured; *N. Laydekeri fulgens*, violet red, and *N. Wm. Falconer*, a rich deep crimson with bright golden centre. *N. colosseus* is a sweet-scented variety with pink-white flowers. *N. gloriosa* has fine rose-coloured flowers.

PARNASSIA PALUSTRIS, or Grass of Parnassus. A pretty little plant for bog gardens, with dark-green foliage and well-formed white flowers, and very easy to grow.

PRIMULA ROSEA, a plant easy to grow, with beautiful rosy pink flowers, which are numerous and last for weeks. Planted between the crevices of rock near the water's edge, it soon makes a fine carpet of colour. *P. sikkimensis* is another beautiful variety for a moist position, throwing up an abundance of fine primrose yellow flowers on stems from 6 to 12 inches long, and prefers a rather shaded position. *P. japonica*, with its rich purple flowers, should also be included. *P. Bulleyana* with several whorls of orange coloured flowers on long spikes; *P. Red Hugh* with bright crimson flowers; the various *Moerheimii* hybrids and *P. littoniana* are some of the finest plants in moist positions.

RANUNCULUS AQUATILIS has fine feathery foliage which floats on the top of the water, interspersed with numerous pure white flowers. It is often found growing in ponds, and requires no planting, if thrown on the water it will establish itself. *R. lingua* is a fine plant for the edges of ponds; in shallow water it grows about 2 feet high, and bears showy bright yellow flowers. *R. lingua grandiflora* is the Giant Marsh buttercup

SAGITTARIA MONSTROSA fl. pl. is most effective for use in the margin of lakes or shallow water. It has dark green leaves and fine double white flowers, varying in height from 12 to 18 inches

SAXIFRAGA PELTATA, a large handsome foliage plant for the margins of lakes and streams.

## HARDY FLOWERING PERENNIALS FOR BEDS, BORDERS, &c.

*Aquatic  
plants.*

TRITOMA, Red Hot Poker, makes a fine show in the border. It is well known, with fine spikes of various shades of red, and is good for planting for effect on the higher ground above the lakes.

TROLLIUS, or Globe Flower, is very useful either for the border or bog garden, the flowers vary from pale yellow to deep orange, and are very free blooming.

TYPHA LATIFOLIA, the Common Bulrush, needs no description, it nevertheless is a graceful ornament in shallow water or boggy ground. *T. minima* is a miniature variety, not more than 18 inches high.

### BRITISH FERNS.

No list of hardy plants could be considered complete which did not include some reference to the great beauty and charm of British ferns, and their wide usefulness in the planting of a garden, especially in shady nooks and corners and wide spaces under trees. Unfortunately (and possibly owing to the mistaken idea that because they are British they are not of much account) very few of the more beautiful varieties are to be seen in our gardens. Even amongst the best planted gardens only the commoner native species are to be found, and yet some three hundred varieties could be purchased, including rare and strangely fantastic crested and plumose varieties which are perfectly hardy and make a brave show when planted under the proper conditions. *Scolopendrum*, *Trichomanes*, *Cetrach* and *Blechnum* are useful for planting on the shady side of walls. *Osmunda regalis*, the royal fern, and its crested varieties are excellent sub-aquatic plants for boggy ground or on the margin of streams or lakes. *Athyrium*, the lady fern (of which there are forty or fifty beautiful varieties), grows excellently in shady corners and under trees, as does also the *Lastrias* or male fern, of which there are also numerous varieties. Then there are the smaller growing varieties suitable for specially selected positions, such as the beech, oak and ash fern. All these are worthy of a place in the garden.



FIG. 444.—FOXGLOVES IN WILD GARDEN.



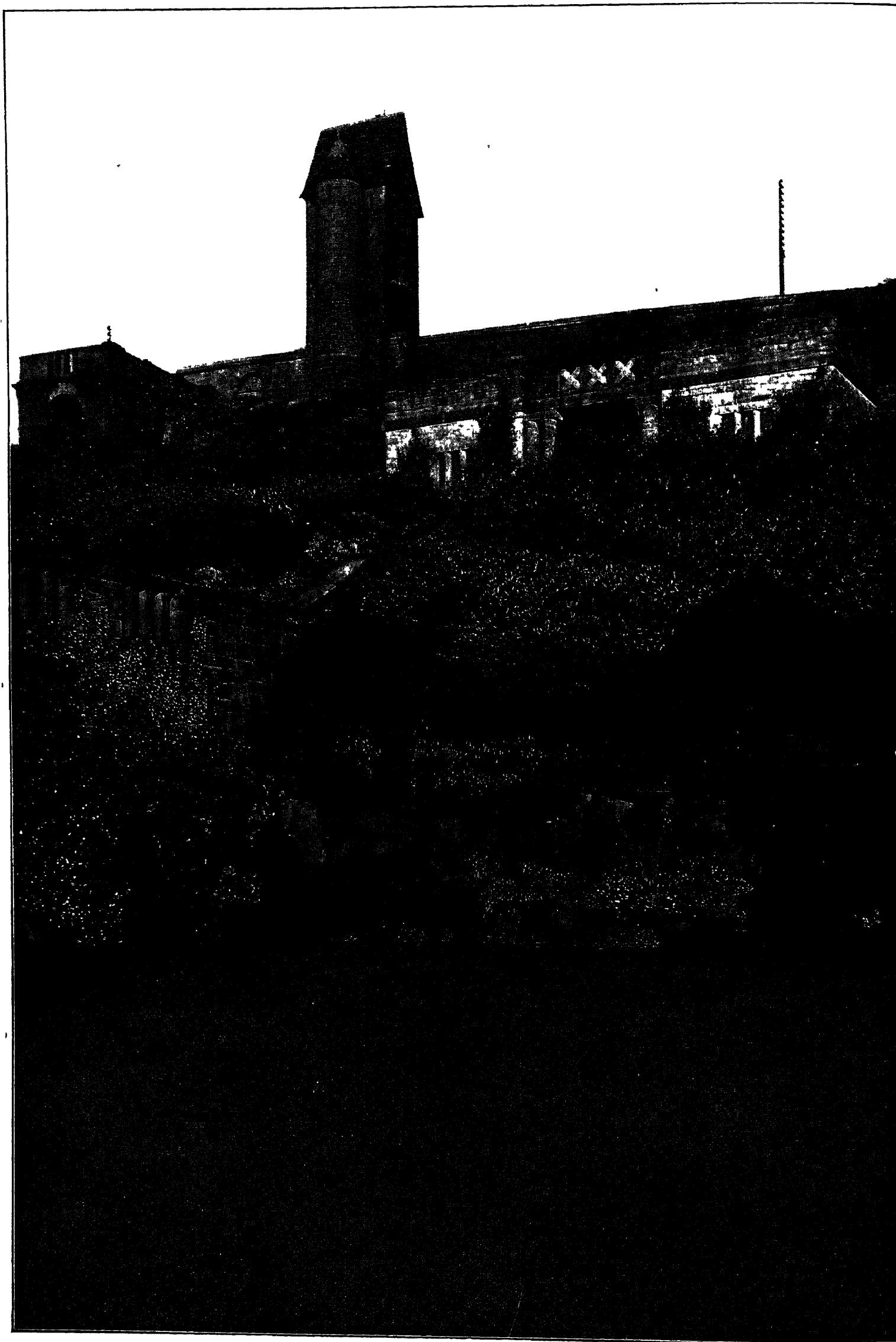


FIG 445 —LOOK-OUT TOWER AT ROYNTON COTTAGE.



## EXAMPLES OF GARDEN DESIGN

To make a representative selection of designs from the large number of plans which the practitioner prepares during the course of his career is a difficult matter. This arises principally from the fact that many plans which would be instructive and interesting to those acquainted with the site and local conditions are more or less meaningless to persons who are not. This is particularly true in regard to designs prepared for undulating sites, the various bends and turns rendered necessary by the contours of the ground could only adequately be explained by a larger number of contour plans and photographs than it is practicable to introduce. There are other instances in which, from a variety of causes, it is impossible to illustrate the design adequately. The gardens at Rushton Hall are a case in point. Those who know the difficulties encountered in laying out such gardens would measure success by the amount of improvement actually accomplished; whereas only the plan of the garden as it is can be illustrated. The point to keep in mind is that the plans selected are intended to show the practical applications of the principles already dealt with. In this way many schemes which, pictorially considered, might add to the effect of the book, have had to be omitted, as their inclusion would not serve any practical purpose, or assist the reader to grasp the conditions which are conducive to successful garden design. The endeavour has been to select designs ranging from a small villa garden to those of from twelve to fifty acres or so, thus dealing with those conditions most often encountered. The descriptive matter accompanying the illustrations explains as far as possible the conditions under which the designs had to be carried out, and the effect which it was desirable to attain; the results are left for the illustrations to portray.

*Examples:  
how  
selected*

Planning small gardens is almost as delightful as designing small houses; and although it would be safe to state that there are a dozen averaging from a quarter to half an acre for every one over two acres in extent, yet garden designers seldom get the opportunity of arranging them. For this reason I am compelled to give, as the smallest gardens illustrated, those belonging to members of my own family.

*Small  
gardens.*

### GARDENS TO SEMI-DETACHED HOUSES.

The first plan shows two gardens surrounding semi-detached residences at Heathwaite, which is on the east side of Windermere, at an elevation of nearly three hundred feet above the level of its surface, and commanding some of the finest views in the district. In the only direction in which future building was likely to take place are a few characteristic cottages which in no way spoil the outlook, and are much more presentable



## EXAMPLES OF GARDEN DESIGN

*Small detached residences.*

than the speculative buildings which might otherwise have been erected. To give meaning to the garden designs and their connections with the houses, the ground-floor apartments are worked out on the plans. It will be noticed that the site is bounded by public roads on the south, east and north sides, the ground to the south-west of the garden being planted as an orchard. The houses are placed much nearer the south than the north boundaries, as this portion of the ground is considerably more elevated than the remainder. In designing the gardens it was decided to have one tennis lawn in common on the south-west, and that both houses should conjointly use the walks connecting with the several public roads; dividing the remainder of the ground as equally as possible. A deep terrace, 15 feet wide in front, and on the north-west of the house, is connected with the entertaining rooms by the verandah, between this and the lawn tennis ground,

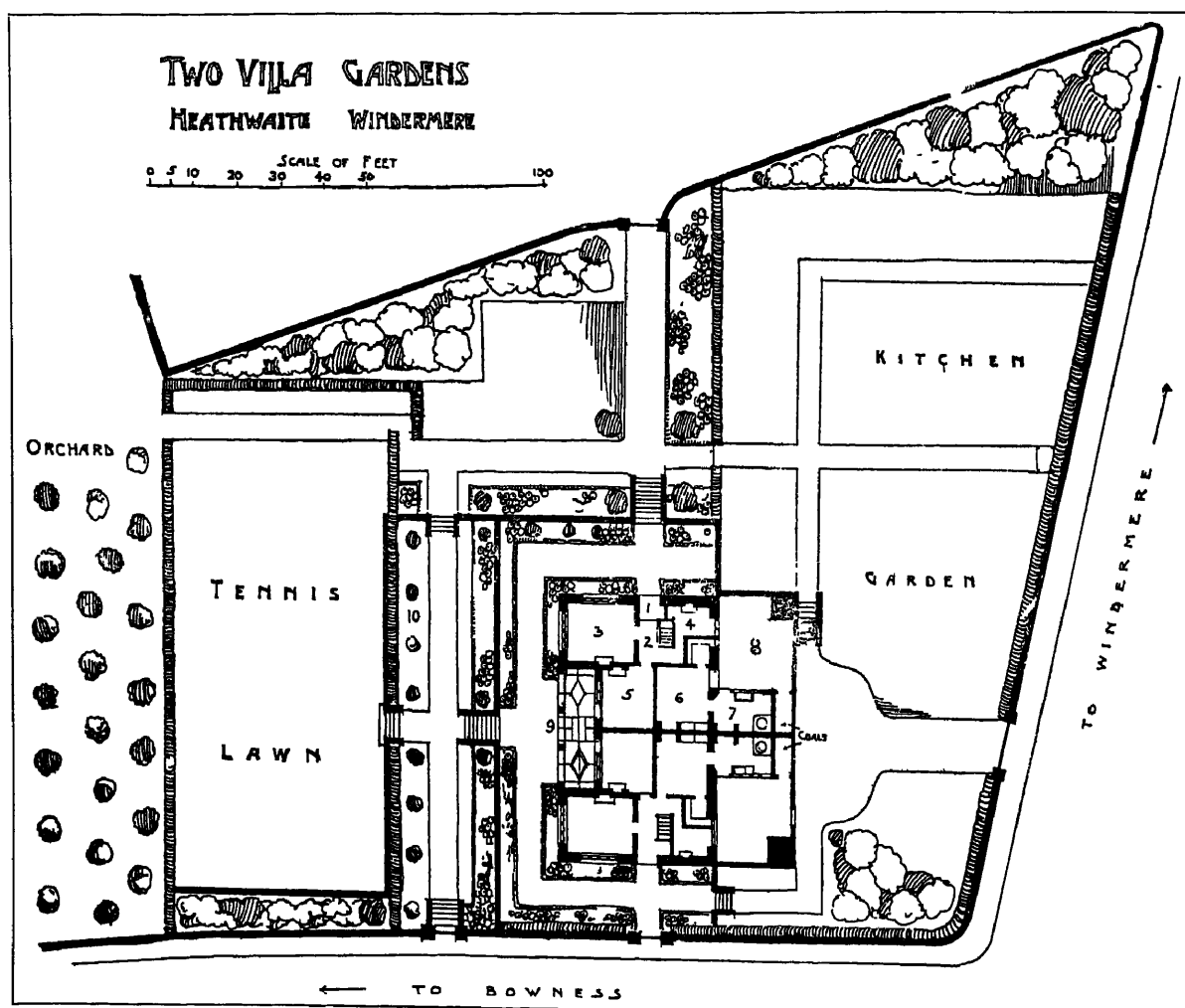


FIG. 446.

THE NUMBERS ON THE PLAN INDICATE —(1) PORCH, (2) ENTRANCE LOBBY, (3) DRAWING ROOM, (4) STUDY, (5) DINING ROOM, (6) KITCHEN, (7) SOUTHERLY, (8) YARD, (9) VERANDAH, (10) LOWER TERRACE

is a second terrace, 25 feet wide, both terraces being supported by rough broken-coursed walls, coped with thick Westmorland slates, with rough steps to foster the growth of spleenwort and other ferns, as shown in the photograph. An outcrop of virgin rock which existed on the site of the terrace walls was left partly uncovered, to accommodate rock plants, and from this the higher terrace wall rises naturally

Beech hedges divide the tennis ground from the orchard on the south-west, and the flower border and main walk from the kitchen garden on the north-west side. The acute angle enclosed by the two roads at the north corner of the site is planted with evergreen shrubs, growing to a considerable height to screen the garden from some cottages on the opposite side of the road. All the flower borders are filled with choice hardy perennials and sweet-scented and free-flowering roses, and all the walls are covered with a selection of clematis, climbing roses, and other hardy climbers.

## EXAMPLES OF GARDEN DESIGN.

### GARDEN TO A SMALL DETACHED RESIDENCE

The small garden at the Corbels, Windermere (Ill. No. 451), will probably be interesting, as it was once the property of the writer, being designed for his own occupation. Consequently it expresses his own ideas untrammelled by the wishes or prejudices of a client. There is, therefore, more of that feeling of breadth and continuity of purpose which should characterise an ideal small garden, and which is usually absent owing to the overcrowding of plants and other features.

*A small detached residence.*

There is no drive or carriage turn, and instead of sloping paths there are fourteen steps from the garden entrance to the front door, otherwise the tennis lawn, so restful to the eye, would have been impossible. The arrangement of the steps is much easier, especially for old people, than the steep path which would have been necessary.



FIG 447 — TERRACES IN FRONT OF SEMI-DETACHED RESIDENCES.

By referring to the plan it will be noticed that whereas steps are necessary in order to reach the front door, the back path is level; it will therefore be realised that the fall in the ground between the Windermere road and the field below the summer-house is considerable. It was to meet these levels that a terrace three feet six inches below the floor level of the house, was arranged, the tennis lawn being constructed at a level about half-way between those of the terrace and field. Thus the terrace is three and a half feet below floor level, while the tennis lawn is three feet six inches lower, or seven feet below floor level, and the field again ten feet below floor level. The terrace and boundary walls are built of the native blue slate rock with coping of the same material, a touch of character being given by the arched gateway, connecting with the highway and the summer-house.

A feature is also made of the trellis work, which gives a dividing line between the summer-house walk and the fruit border, and also provides the necessary connection between the house and the summer-house, and being overgrown with climbers, is a pretty feature in the garden. The connecting border is planted with free-flowering roses, including some of the single varieties; whilst standard Gloire de Dijon roses are placed



FIG 448.—GARDENS TO A SMALL DETACHED RESIDENCE.



FIG. 449.—GARDENS TO A SMALL DETACHED RESIDENCE.

## EXAMPLES OF GARDEN DESIGN.

at regular intervals lawn, which is allowed giving the appearance with the hedge on the road to Bowness is trimmed to conven- whole of the walls are long border is planted varied at intervals hollies and Cupressus race at the head of den Irish yews, rising walk, to be formed

The small kitchen through an archway seen on the right illustration No. 451 and the middle by a walk, is planted a clipped hedge answers all the pretentious drying the necessity for pro- and lines which dis- gardens



FIG 450 —GRASS WALK AT THE CORBELS, WINDERMERE

A box hedge is planted inside the wall by the side of the tennis to grow over it, thus of a retaining wall top. Bordering the another hedge, to be tional shapes. The climber-clad. The with hardy perennials, with standard golden Frazeri. On the ter- the steps are two gol- out of the gravel later into an arch. garden is entered in the trellis, to be hand side of section 449, and is divided in on one side of which thorn hedge. This purposes of a more ground, and obviates viding the usual posts figure so many small

*A small detached residence.*

All the flower borders are filled with hardy perennials, bedding-out plants, which

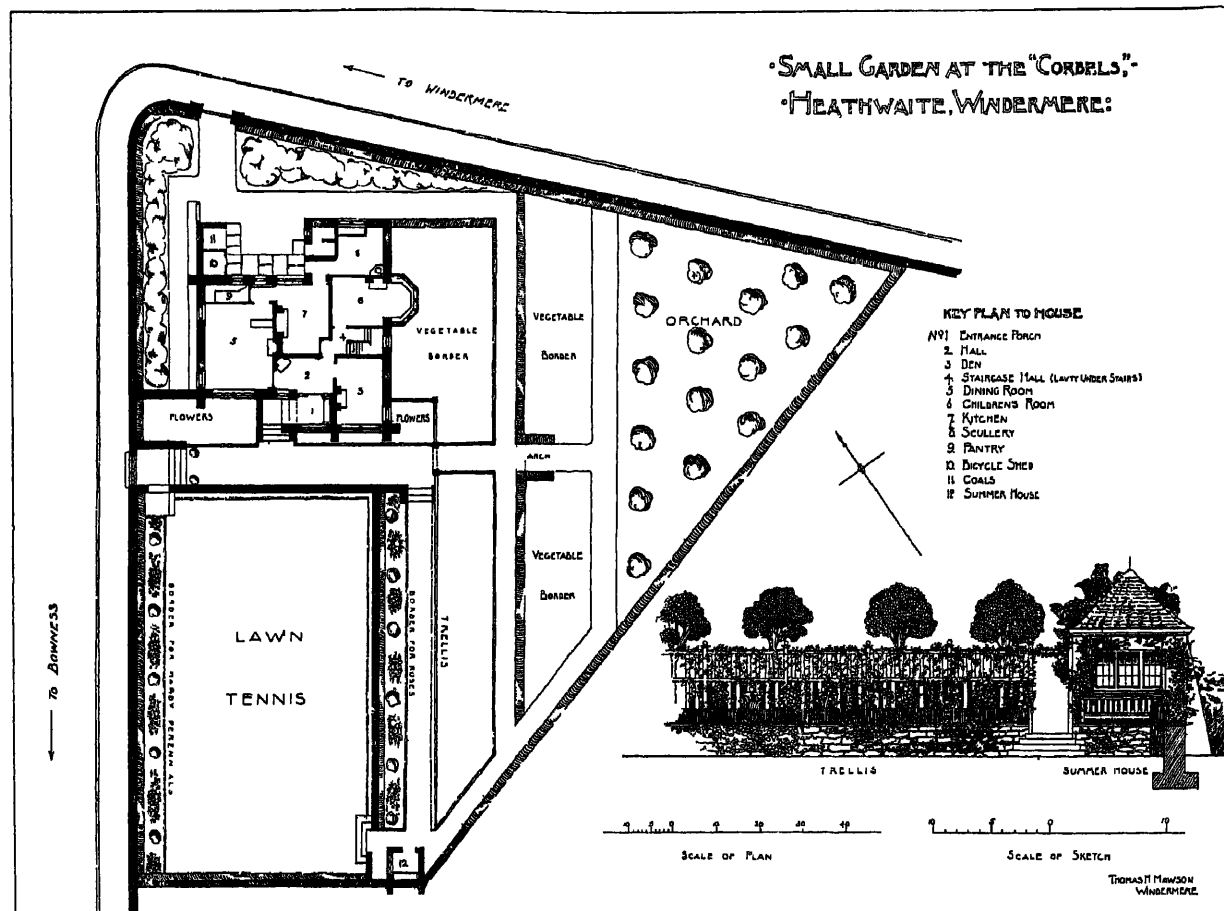


FIG 451.

would add considerably to the expense of maintenance, not being required. Economy has been considered all round, and this fact may have added something to the sense of breadth

## EXAMPLES OF GARDEN DESIGN.

*A small detached residence.*

and repose. The Corbels is the more distant of the houses in illustration No. 447. Since this plan was drawn, an additional strip of ground has been purchased, making it possible to construct the grass walk and borders shown in accompanying photograph (Ill. No. 448).

### GARDENS FOR A LARGER DETACHED RESIDENCE.

This provides another example of a garden only slightly larger than the last, laid out for the late Mr. Robert R Mawson on a site immediately opposite the main entrance to the well-known Windermere Nursery Gardens, of which he was the owner. The nursery

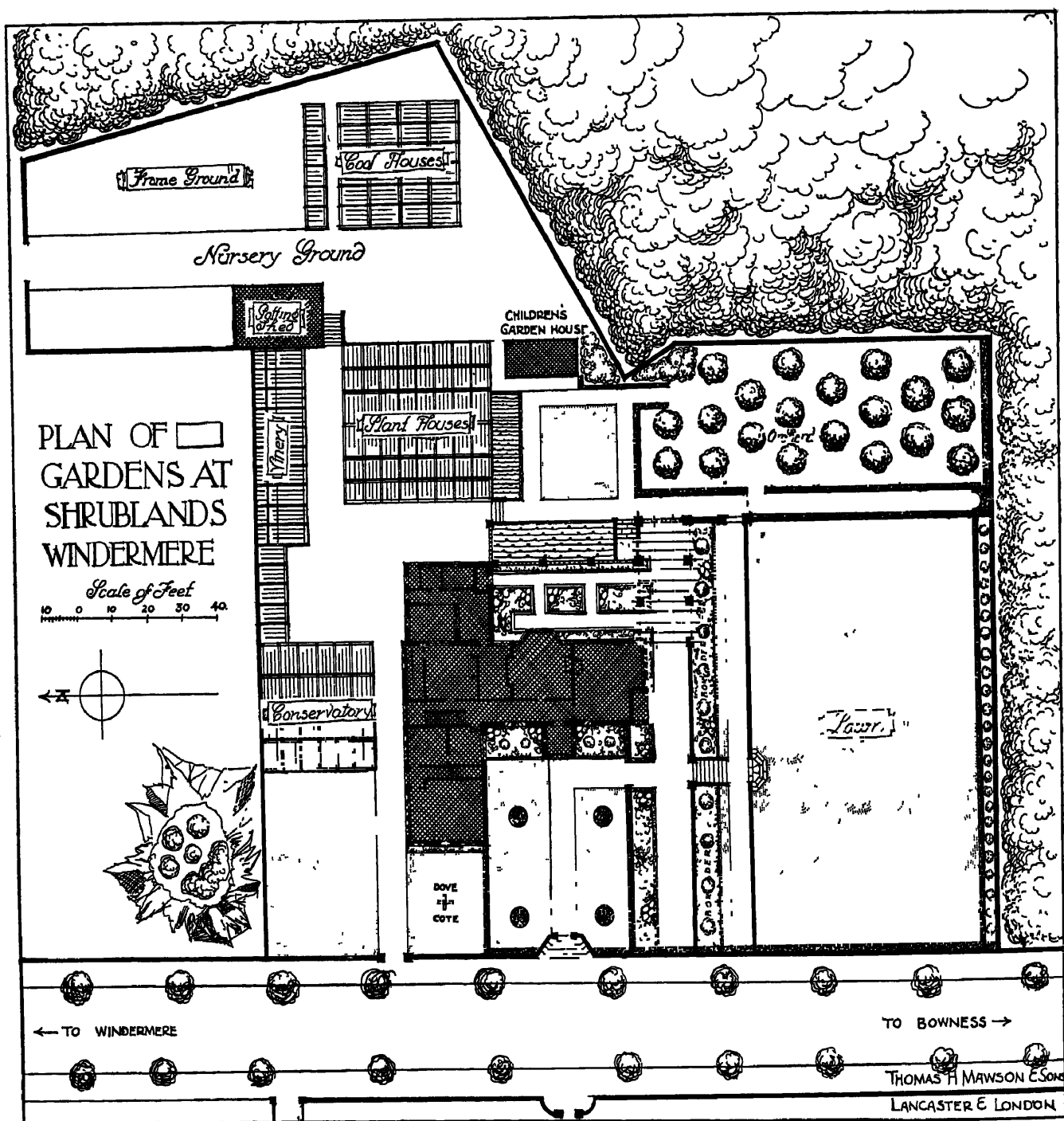


FIG. 452.

and the residence were planned in relation to one another, the main entrance door and porch to the house being so placed that the path up to them from the highway continued the lines of the vista down the principal path of the Nurseries.

The Nursery grounds being leasehold, there was always the possibility that they might be abandoned in favour of another site, and it was therefore desired that some of the conservatories and plant houses together with accommodation for the clerical staff, should form part of the Shrublands scheme, thus creating a permanent business centre. Reference to the plan (Ill. No. 452) will show how this has been effected to the north of the

## EXAMPLES OF GARDEN DESIGN.

house, and in such a manner as to leave the west, south, and east fronts for the use of the residents.

*A larger detached residence.*

This necessity for devoting a part of the grounds to the needs of the business curtailed the area available for the grounds, but by making the very most of the remaining space quite a self-contained series of pleasaunces has been contrived. Entering from the highway by the gate and steps shown in illustration No 76, we come first of all to the forecourt surrounded by clipped hedges and with the path from the gate to the porch intersecting it. This path is flagged in the centre and the remaining space on either side paved with cobbles, thus combining the rusticity of the latter method with the practical advantages of the former. It is crossed by another walk to the right leading to the terraces and lawn. On the south front of the house the pleasure



FIG. 453.—VIEW FROM THE LAWN, SHRUBLANDS, WINDERMERE.

grounds are constructed in three levels, the two upper being terraces one above the other, and the lowest a tennis lawn. Comparison of the plan of these gardens with illustration No 453 will explain how this is done, more clearly than any description possibly could, and the local character, as may be discerned, is expressed in the building; as are also the architectural adjuncts of the garden, such as the walls, steps, and pergola columns. They are all built from the rock quarried on the site, which imparts a rugged character of its own. A proportion of unquarried rock remains cropping above the ground and forms the basis for rock-garden effects here and there.

The terraces, made necessary by the contours of the ground, add very much to the charm, variety, and convenience of the garden. In small places such as this, especially when situated in a mountainous district, there is not only something particularly restful in the level stretches they provide, but they also allow of flat walks, and, if paved with cobbles or crazy paving with their numberless joints, they form a garden attraction

## EXAMPLES OF GARDEN DESIGN.

*A larger  
detached  
residence*

which is equally acceptable at all times of the year when it is not actually raining. By using walls instead of grass banks, much precious space is saved and the opportunity provided for a charming rock and wall garden. With this end in view the lower terrace wall is built dry, that is, without mortar or cement, and has a backing of earth, as described in the chapter which deals with wall gardens. A layer of well-rotted turf was also built into the wall under each batch of plants, and the great success which has resulted has more than compensated for the extra expense and trouble involved. A marked feature of this simple terrace scheme is the arrangement of rough rock steps from one level to the other, which, though costing less than a quarter the sum which would be paid for the usual dressed stone steps, are well adapted to their position, and at the same time admit of tufts of Alpine flowers between the crevices.

The garden, standing amongst wooded surroundings, is, like so many new domains, entirely without big trees to give extensive shade; it has therefore been found desirable to provide the pergola erected on the upper terrace near the garden entrance from the drawing-room, as shown in illustration No. 453. This feature is also built of local stone, and serves to enclose the small panel garden which is overlooked by the dining-room window.

The ground at the east end of the garden is devoted to herbs, strawberries and bush fruit: a few tall conifers in the south-east corner screen off adjoining property. At the north-east corner a piece of land has been devoted to children's gardens, and a site provided for a play-house,

The part of the land devoted to the nursery business has been laid out in such a manner as least to affect the privacy of the remainder, and, at the same time, so as to allow of the whole being converted into private gardens without serious alteration should the necessity for this ever arise.

The several views of this garden which are given show how much has been done in the very short time which it has existed to clothe it with greenery, and how the many crudities which so often characterise newly formed gardens have been avoided.

### GARDENS FOR A SUBURBAN RESIDENCE ON BERKHAMSTEAD COMMON.

*A good-  
sized  
suburban  
residence.*

There are many points in this plan which serve to illustrate some of the recommendations made in the earlier part of this work; there are others which have a very direct bearing on the designing of gardens connected with small houses. To understand the plan of the garden it is necessary to grasp in the first instance the plan of the house, which has been designed with some regard to the possibilities of the garden, but more particularly to understand the position of the ground and its surroundings. Situated on the west side of the old road leading from the town of Berkhamstead to the Common, and at the top of the steep ascent known as White Hill, the ground slopes some three feet from the north-east to south-west, but along the road there is a much greater fall, the point opposite the south garden gate being some six feet below the lawn level, whilst opposite the carriage court the road is only about four feet lower. Cross-wise the ground is practically level; outside the north-west boundary fence it falls rapidly into a valley, the rising ground on the opposite side being richly and picturesquely timbered. To the south is a recently erected house, which in a great measure decided the plan of the garden; beyond this, in the hollow, is seen the fine old tower of Berkhamstead Church, with the charmingly wooded slopes of Ashridge Park to the left of the tower.

The carriage court occupies a square, two sides of which are formed by an angle of the building, with practically no drive to speak of. On the north side it is enclosed by a high, split oak fence, with lattice-work. The kitchen wing and necessary yard space are immediately behind this lattice fence, and the house is so placed on the site as to

## EXAMPLES OF GARDEN DESIGN.

allow the stable, coach house and yard to be entered direct from the carriage court. Tradesmen have a separate entrance and path, arranged behind the trellised fence. The

*A good-sized suburban residence.*

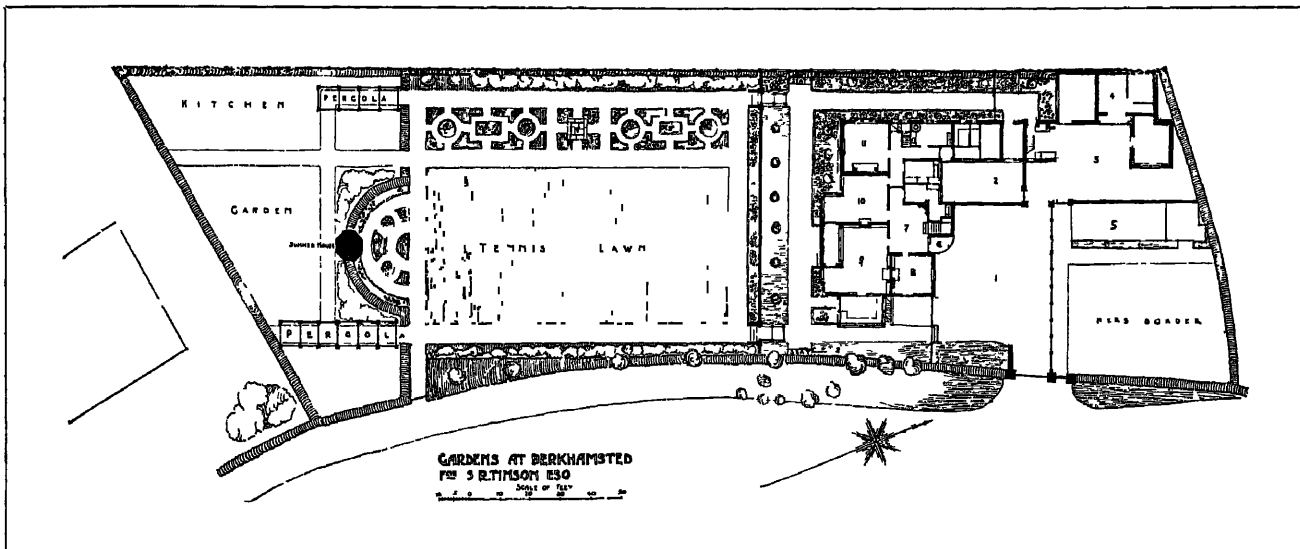


FIG 454.

THE PLAN OF THE HOUSE IS EXPLAINED BY THE FOLLOWING NUMBERS —1, CARRIAGE COURT. 2, KITCHEN YARD 3, STABLE YARD 4, STABLE BLOCK 5, GREENHOUSE, WITH POTTING SHED AT THE END 6, ENTRANCE PORCH 7, ENTRANCE AND STAIRCASE HALL 8, MORNING ROOM 9, GREAT PARLOUR, OPENING INTO CONSERVATORY AND VERANDAH 10, DINING ROOM, OPENING ON TO VERANDAH. 11, KITCHEN.

greenhouse, potting shed, and herb garden occupy the space between the carriage court and the north boundary hedge.

As will be seen from the perspective view (Ill No. 455), the garden scheme on the south front of the house is centred on the main gable with its verandah and balcony.

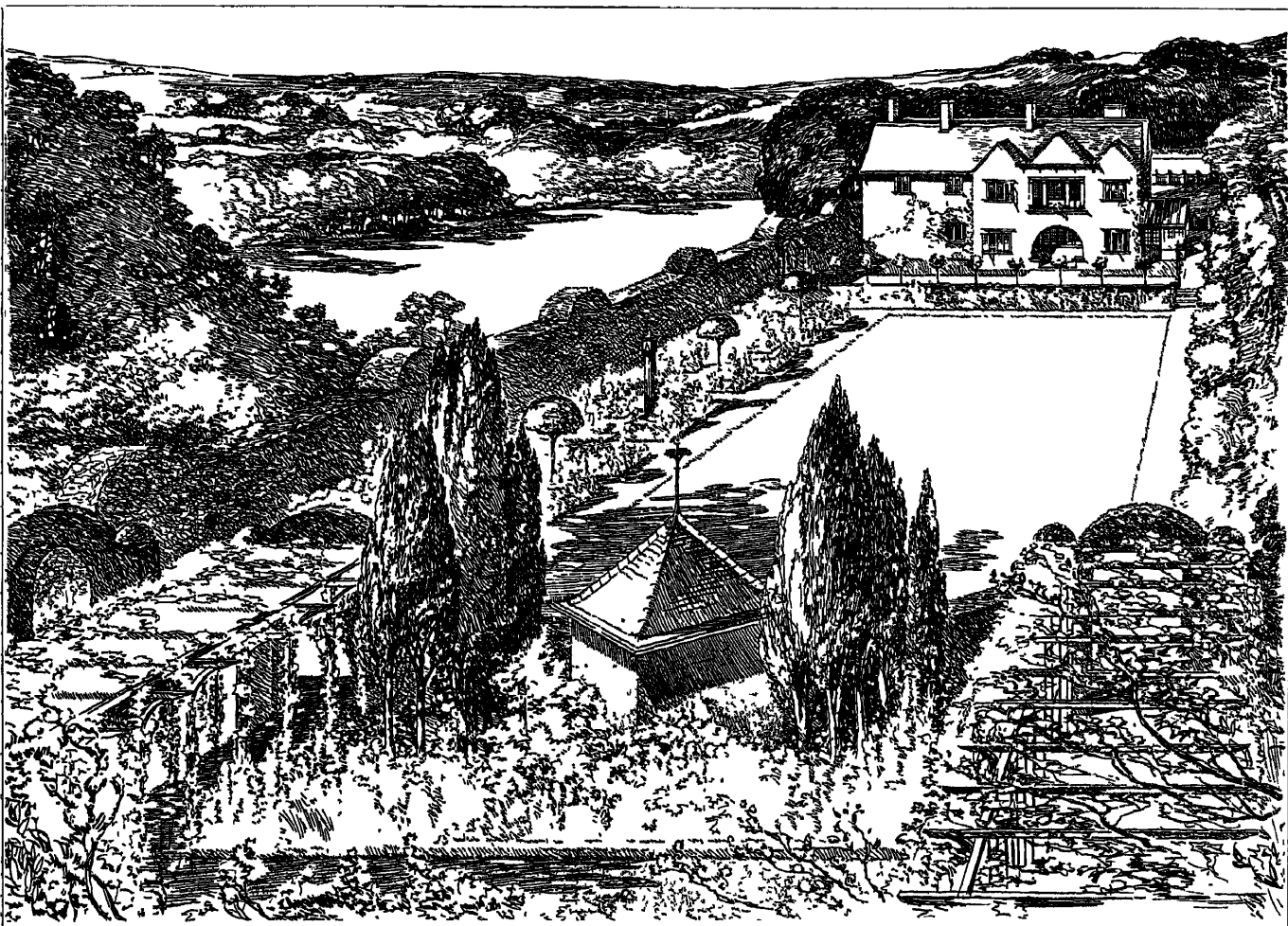


FIG. 455.—GARDENS AT BERKHAMSTEAD, FOR S. R. TIMSON, ESQ.

This allows of a full-sized tennis lawn backed up by a summer-house, with apsidal hedges on either side and a semi-circular arrangement of flower beds. As these features



## EXAMPLES OF GARDEN DESIGN.

*A good-sized suburban residence.*

come to one side of the ground, there is room on the other for a proportionate panel garden with a sundial in the centre. Beyond this arrangement is a kitchen garden, and, to give greater seclusion to it, pergolas are constructed over the walks connecting it with the pleasure grounds.

The plateau on which the house stands is but two feet above the carriage court and one foot above the tennis lawn. This change of level, though slight, allows of a stone kerb, which gives the effect of a terrace in front of the house, and at the foot of which is a border for select free-flowering and sweet-scented roses. A garden seat at each end finishes the raised plateau, and embowering arches of roses span the main terrace walk to the top of the steps. Along the east side of the garden the old holly hedge and dyke have been retained, but to make its line conform to the angle scheme on the garden side, additional common hollies are planted, the whole to be trimmed to one level.

Although a sunny garden, ample shade was readily provided by the loggia, summer-house, and pergolas, also by the walk between the house and the north-west boundary. The garden will shortly be splendidly protected by the holly hedge, trimmed to a height of six feet, which, with favourable growth, should be accomplished in six years.

During the spring months there is a wealth of flowering shrubs, including lilac, mock orange, spiræa, deutzia, ribes, weigela, and others similar.

Climbers are planted wherever there is wall space or treillage over which to ramble. It is expected that the interest from this class of plant alone will more than compensate for any lack of shrubs, there being very little room for evergreen trees. In addition to the climbers on the house, out-buildings, and treillage, single roses, such as carmine pillar, Austrian briar, etc., are planted at regular intervals along the several borders and trained to posts some eight feet high.

*A small formal garden.*

### A SMALL FORMAL GARDEN AT HARROGATE

Harrogate, like other famous spa resorts, presents to everyone a sense of spaciousness, possessing, in accord with Bath, Buxton, and Cheltenham, an air of dignity which finds an answering note in its architecture.

The famous open Stray, extending to several hundreds of acres, imparts to this town the air of a garden city, which nothing can destroy. Its medicinal springs, and the high upland plateau whereon it is situated, ensure a breezy, healthful tone, and account for the fact of its increasing popularity both as a visiting resort and as a residential town.

The Duchy Road Estate comprises some of the highest-class building property in Harrogate, being situated in a well-favoured section of the town, in a select neighbourhood, yet sufficiently convenient for all domestic requirements and places of interest.

It is in the midst of this estate that our client, Mr. Guevara, a much-travelled Mexican gentleman with business connections in Leeds and Bradford, decided to make his home. Purchasing a residence, which he first altered and extended, he then decided to bring his gardens up to the standard and character of this remodelled house. These gardens are rather over half an acre in extent, being nearly 300 ft. long by about 90 ft. wide, the site running from south to north, and, taking the average level of the garden, is some 11 ft. below the road.

The problem was to secure from so small an area the greatest amount of interest and privacy, and at the same time not to interfere with the amenities east and west. The fall of the ground from the floor level of the house permits two terrace levels, the one adjoining the house; a second one three feet lower. From this latter is the descent to the main garden. The first terrace is laid out as a panelled rose garden, terminated at its west end by a pergola. The second terrace, which is longer,

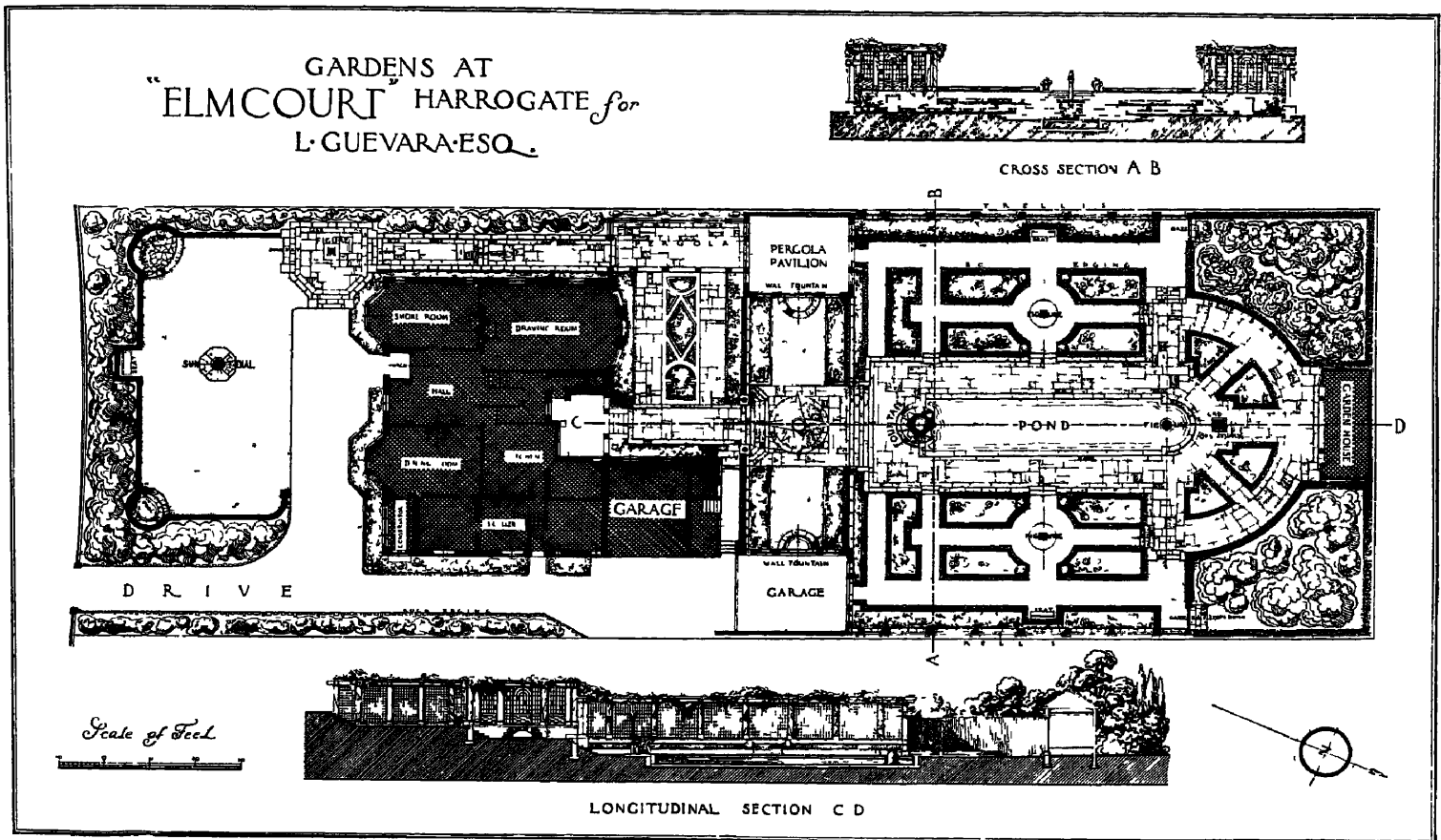


FIG. 456.

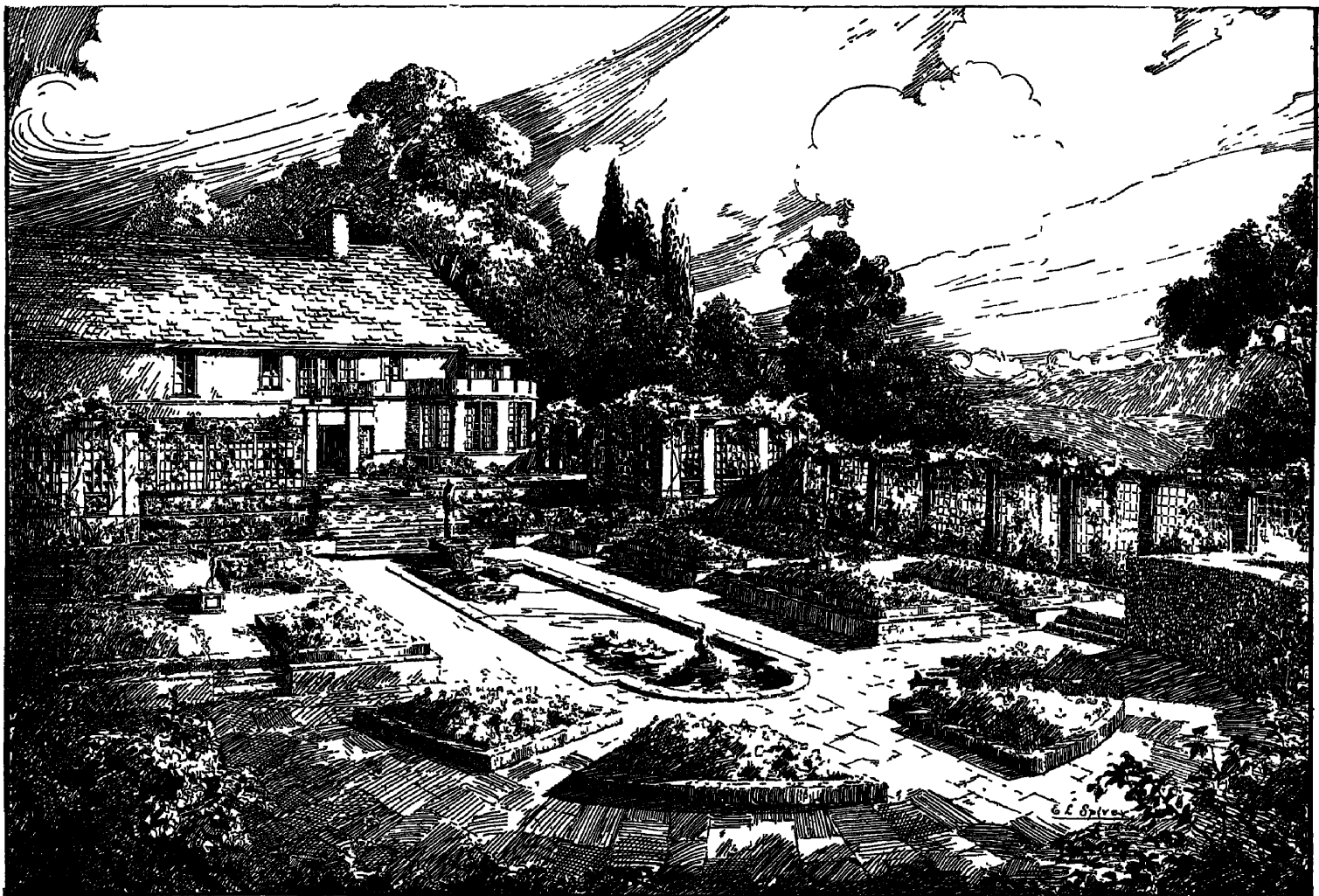


FIG. 457.—GARDENS, ELMCOURT, HARROGATE, FOR L. GUEVARA, ESQ.

## EXAMPLES OF GARDEN DESIGN.

*A small  
formal  
garden.*

extends from the garage on the one side to a pergola pavilion on the other, each erection being designed as balancing architectural units in the scheme. The main garden is in turn three feet lower than the second terrace, its central axis ending in a garden pavilion of classic design, which closes in the garden on the north, having a lily pond as its centre-piece.

On the east and west of this pond there are panelled gardens, raised a foot above the level of the paths surrounding. The beds are all edged with a wide band of box and planted with hybrid tea roses, each bed being grouped with the distinctive colour, and positions retained in the middle of the scheme for statuary.

Beyond this, and against the trellis, divided as shewn on section, long borders are provided for herbaceous plants. A semi-circular yew hedge connects this trellis with the central garden pavilion. The trellis gives an opportunity for such rich climbers as *Lonicera*, *Clematis*, *Ceanothus*, and some of the choicer climbing roses. At the north-east and north-west corners space has been allotted for the planting of trees of a towering upright character. The whole of the paths are laid down in warmly tinted York flag-stones, which make the most permanent material and accord with the classical regularity.

### A LARGE TOWN GARDEN.

*A large  
town  
garden.*

As an example of a town garden none will be better for the purpose than that attached to the town house of the late Viscount Leverhulme, at Hampstead, not only because the scheme was an entirely new one, completely replacing the gardens which previously existed, but also because the outstanding problem was one which must necessarily occur again and again in this class of work.

This problem consisted in the satisfaction of two main requirements. In the first place, an adjacent knoll on Hampstead Heath overlooked the whole of the grounds in such a manner as to make any sort of a fête or garden party quite out of the question unless something was done to give shelter and seclusion; and secondly, this seclusion must be obtained without obstructing the unique view in the direction of Harrow-on-the-Hill.

In addition to these two main requirements there were other factors which helped to determine the nature of the design to be adopted. Lord Leverhulme, with his usual enterprise and energy, was anxious that whatever was done should be done quickly, and that the design should be one which would not take a long time to attain a natural effect. It was also desired that provision should be made for utilitarian requirements in the way of propagating houses, potting sheds, stores and frame ground, which would need careful contriving if they were not unduly to limit the space available for pleasure grounds, and, moreover, more thought had to be given to the question of open-air entertaining than is usually the case in a town residence.

Previous to the preparation of the scheme, the house had been much enlarged, and the music room and china room wings, shown on the plan (Ill. No. 458), added, and also the terrace along the garden front of the house, upon which we subsequently placed the verandah shown in illustration No. 191. These various additions to the house throw the existing design of the grounds completely out of scale, and the preparation of a completely new scheme became imperative.

A valuable asset which has been carefully retained, existed in the presence of a number of fine beeches and elms near the house, but apart from these there was little to guide the designer in the preparation of his scheme. On the contrary, there was a drop of considerably more than thirty feet from the floor level of the house to the west boundary, a distance of only two hundred and fifty feet from the ends of the projecting wings, thus involving an engineering feat which would have deterred a less enterprising client, if level lawns, so necessary to a town house, were to be formed.

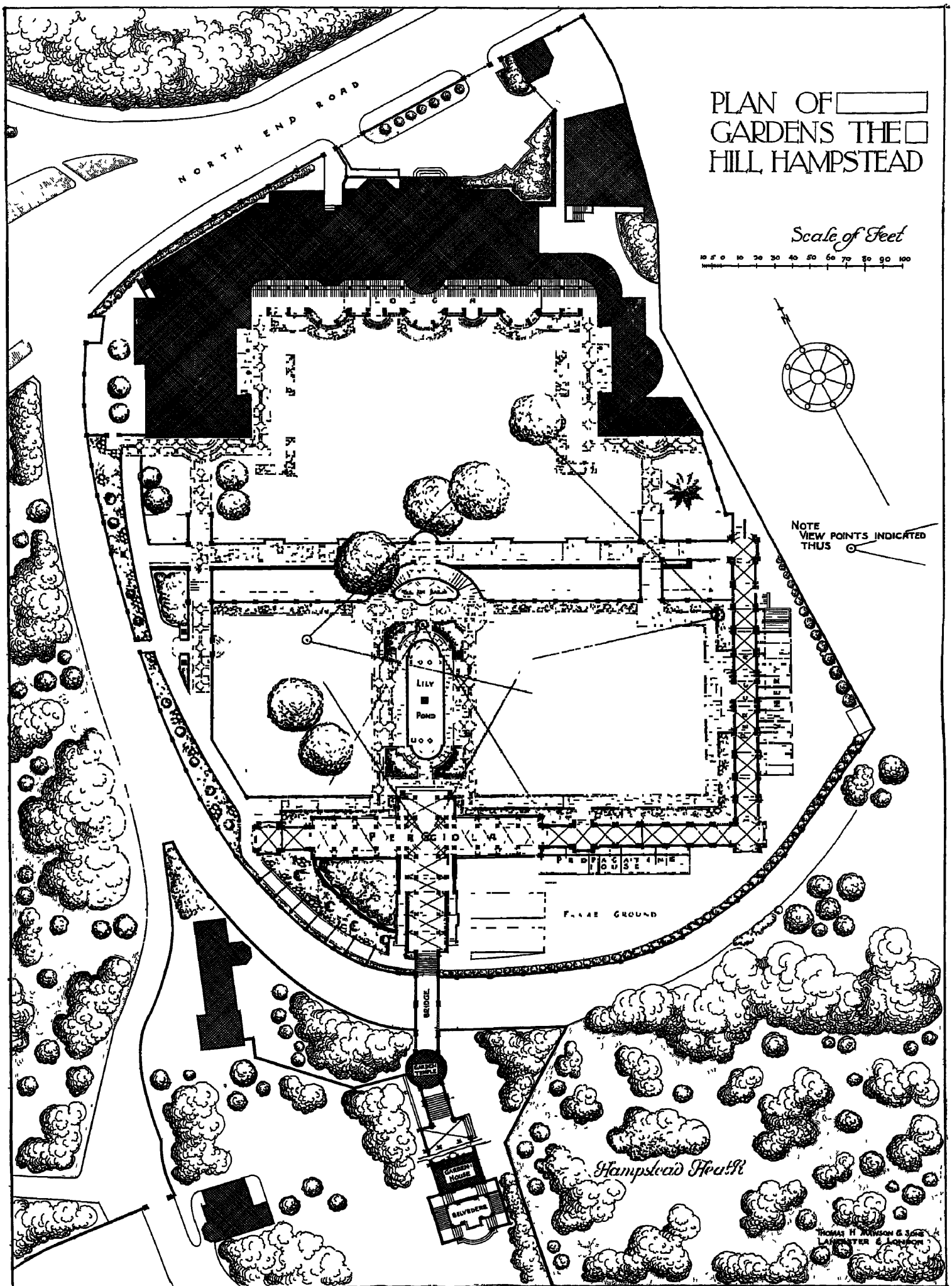


FIG. 458.

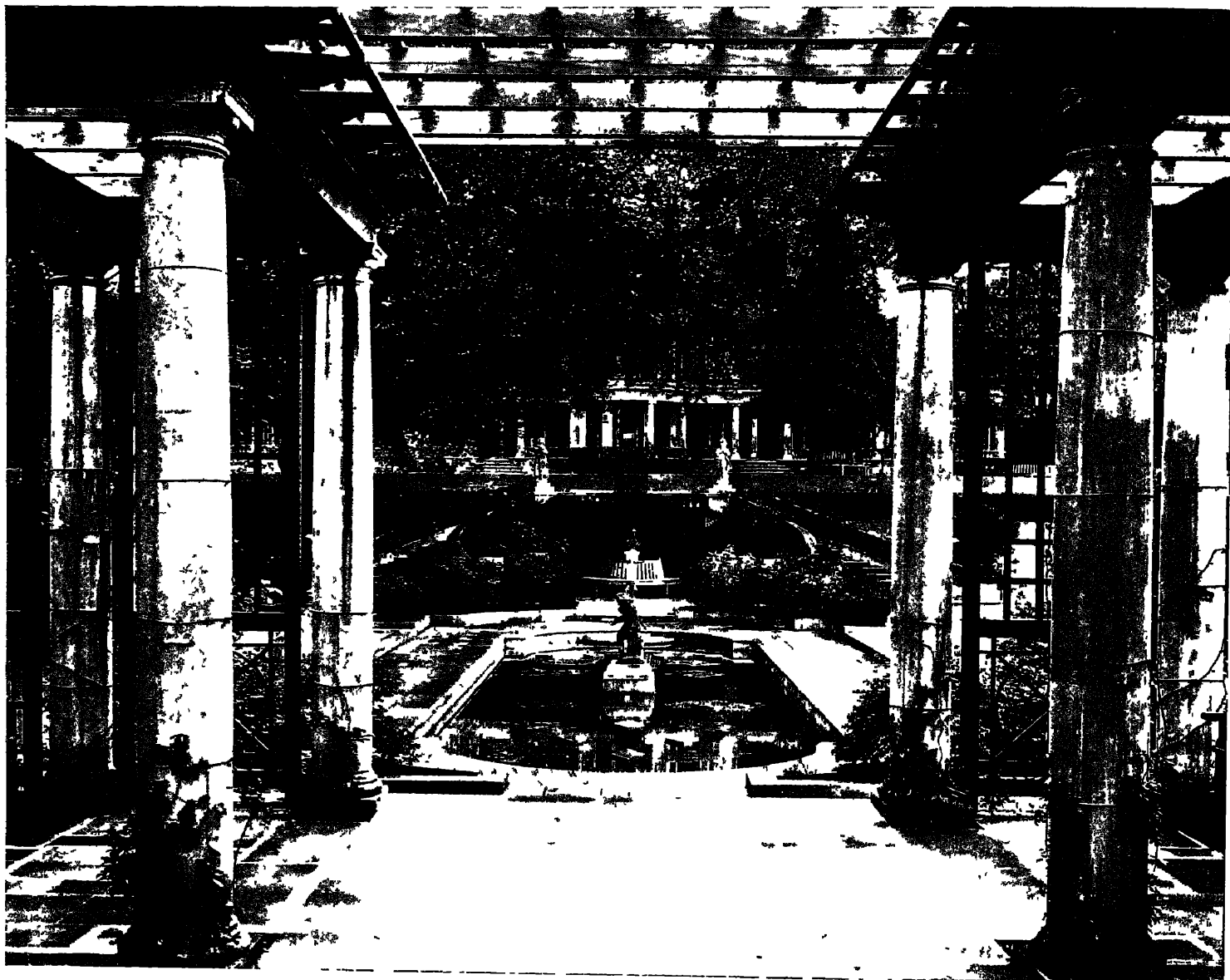


FIG. 459 —LILY POND AND PERGOLA, THE HILL, HAMPSTEAD, FOR LORD LEVERHULME.



FIG. 460.—PERGOLA, POND, AND TERRACES AT THE HILL, HAMPSTEAD.



FIG 461.—GARDENS AND CHINA-ROOM WING AT THE HILL, HAMPSTEAD



FIG. 462.—GARDENS AND MUSIC-ROOM WING AT THE HILL, HAMPSTEAD.



FIG. 463 —THE COLONNADE LEADING TO THE BELVEDERE AT THE HILL



## EXAMPLES OF GARDEN DESIGN.

How this drop in the ground was met, and not only met, but so met as to prove an actual asset, will be seen by comparing the plan with the accompanying photographic illustrations. The building of a retaining wall sufficiently high to support the level lawns, not only gave a splendid vantage point from which to view the wonderful prospect but also provided means for placing the propagating houses, frame ground, etc., out of sight below it, while the potting shed, gardener's store, and the heating chamber for the glass-houses were provided for under the raised, pergola-covered terrace, which encloses two sides of the lawn, and which is shown in illustrations Nos 459 and 460

*A large town garden.*

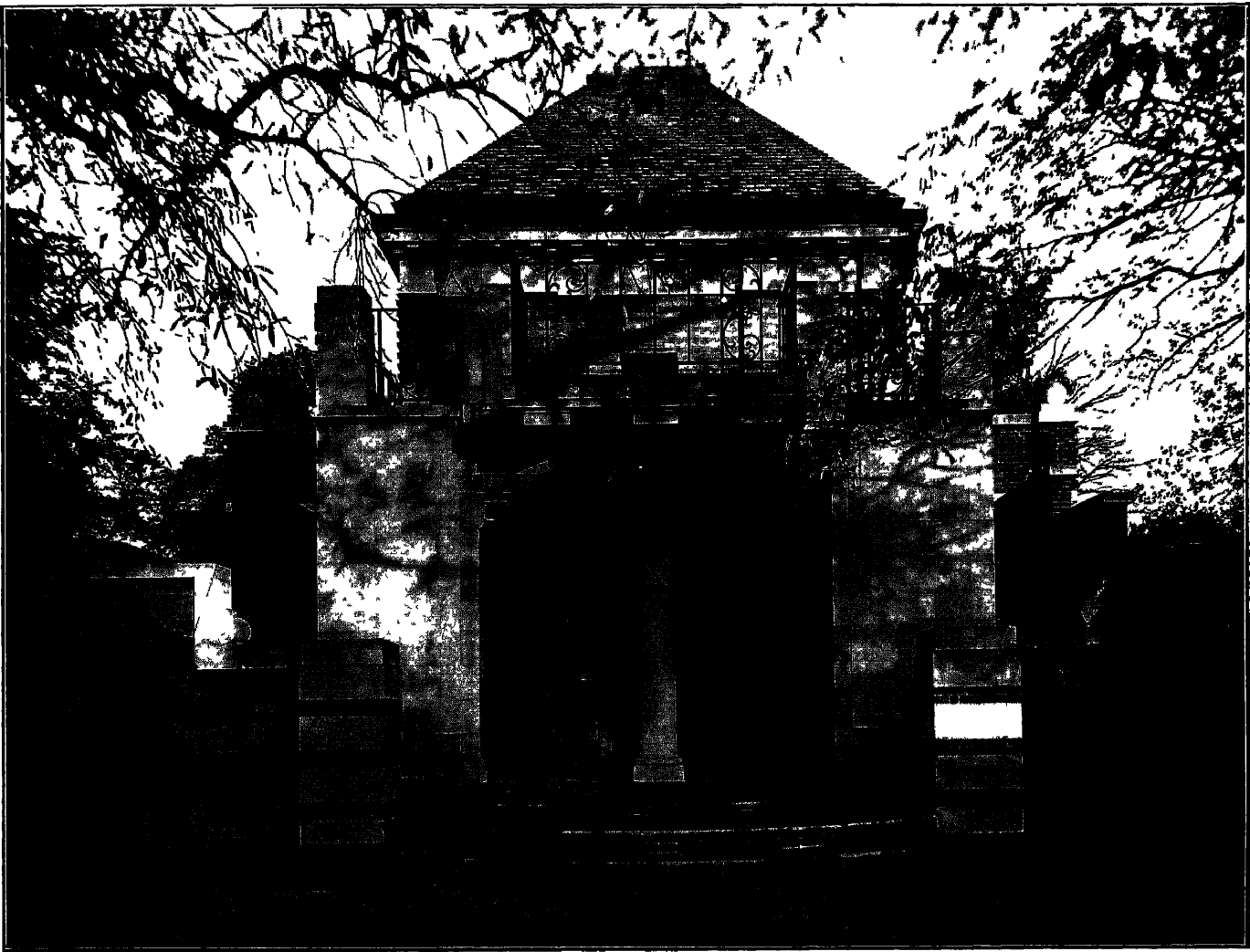


FIG. 464 —THE BELVEDERE AT THE HILL, HAMPSTEAD

As will be seen, the axial line through the centre of the house is very strongly marked by the spreading steps and water-lily pond shown in one of the photographs. In the original scheme, this axis was closed by the central gable of the conservatory shown in illustration No. 319, but since this photograph was taken, the erection has been removed and the pergola temple shown in illustration No. 460 substituted. This alteration was made when our client purchased Heath Lodge, the property on the south-west of the Hill and separated from it by the public footpath leading to Hampstead Heath. When this adjoining property was acquired it became necessary to weave the two gardens into one cohesive whole. Accordingly the main axial line through the semi-circular terrace steps and lily pond are continued over the bridge spanning the public footpath, by a pergola similar in detail to illustration No. 463. This axial line continues across the bridge and finishes in a garden temple. From thence a slightly deflected axial line commences and continues to the belvedere in the grounds of Heath Lodge. This part of Heath Lodge garden has been completed and is shown in illustrations Nos. 463 and 464. The extended and elevated terrace secures the view of the



## EXAMPLES OF GARDEN DESIGN.

*A large town garden.*

beautiful country surrounding, and now that the Heath Lodge house is demolished, it forms the centralizing feature in the grounds of the latter.

The whole extent of the estate is some four and a half acres, of which, however, one and a half acres are detached and are used as a cricket ground, leaving three acres for the area shown on the plan, including the portion covered by the house and its extended side wings. This area is, of course, still further curtailed by the small portion unavoidably given up to the carriage approach and that occupied by the stables, so that a glance at the accompanying photographs will show at once that the most has been made of the remaining portion which could be devoted to the pleasure grounds after the further deductions necessary to provide for the frame ground and glass houses.

The accompanying photographs have been selected from a number as giving the best general idea of the outstanding features of this garden as at present extended. Of these, two, as already stated, look along the main axial line through the grounds; one, No. 460, looking from, and No. 459 towards, the house. The lower illustration shews the detail of the pergola and the central flight of steps leading from the lower terrace to the upper one, and behind them is the verandah, of which a nearer view has been given in Illustration No. 191.

Illustrations Nos. 461 and 462 give broader views which, when examined together with the plan, will give a fair idea of the general appearance of the gardens. In No. 462 the fine timber trees which are such an asset to the scheme are to be seen with oak seats encircling their boles, while in No. 461 the extreme end of the pergola shown in the first two illustrations described is visible, with the domed rose-temple which finishes it. Another of these temples is placed at the corner of the lawn, where the best view over Harrow can be obtained. This last photograph was taken soon after the steps were completed, and before the greenery which covers them in the other view had had time to develop. It shows clearly that the difference of level between the two terraces has been arranged in two grass banks with a broad grass walk between them. As the boughs of the large elm and the other upgrown trees sweep out over this walk, it is a most successful feature.

Illustration No. 463 shews the new pergola extending into the grounds of Heath Lodge, and No. 464 the belvedere and balcony at the south end of it.

### GROUND'S TO A NEW COUNTRY SEAT.

*Grounds to a new country seat.*

It is a cause for lament that the modern spirit of change reaches so often the old country seats which are the pride of every Englishman. Next, therefore, to assisting in the preservation and enrichment of the old garden, the designer has had no more agreeable or fascinating task than when called in to adapt a new modern domain to fulfil all the functions and pronounce the sentiments of the old ancestral home. It is most gratifying if his work can reach the high level by the help of a sympathetic and artistic owner, and eventually attain to that mellow beauty which is at present the prerogative of the old examples.

This was an exceptional opportunity at Dunchurch Lodge, which is illustrated in the accompanying photographs. The name "*Dunchurch*" is associated with the immortal Mr. Pickwick returning in the pouring rain from his unsuccessful journey to Birmingham; and when one visits the actual scene of the incident, the association, instead of being rudely dispelled, as is so often the case, is immediately heightened in a most delightful manner. There are still the old stocks in which malefactors were confined, to carry the mind back to the days of beadles in cocked hats and official self-importance, and there are the old houses and coaching inns with scarcely a modern feature pronounced enough to dispel the sentiment, and over all lies that peaceful and wholly undefinable charm which belongs exclusively to the old coaching town.

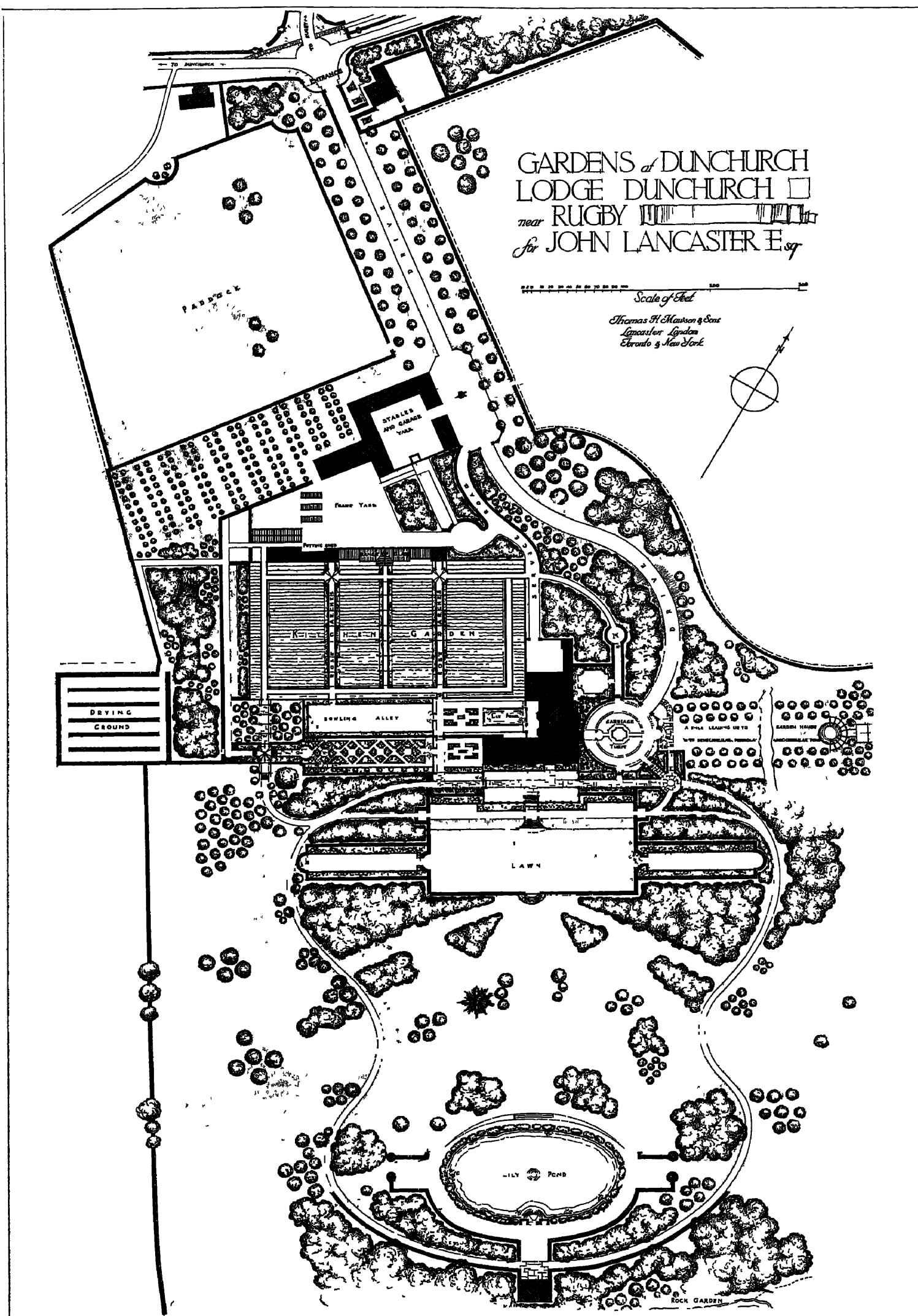


FIG. 465.

## EXAMPLES OF GARDEN DESIGN.

*A new  
country  
seat.*

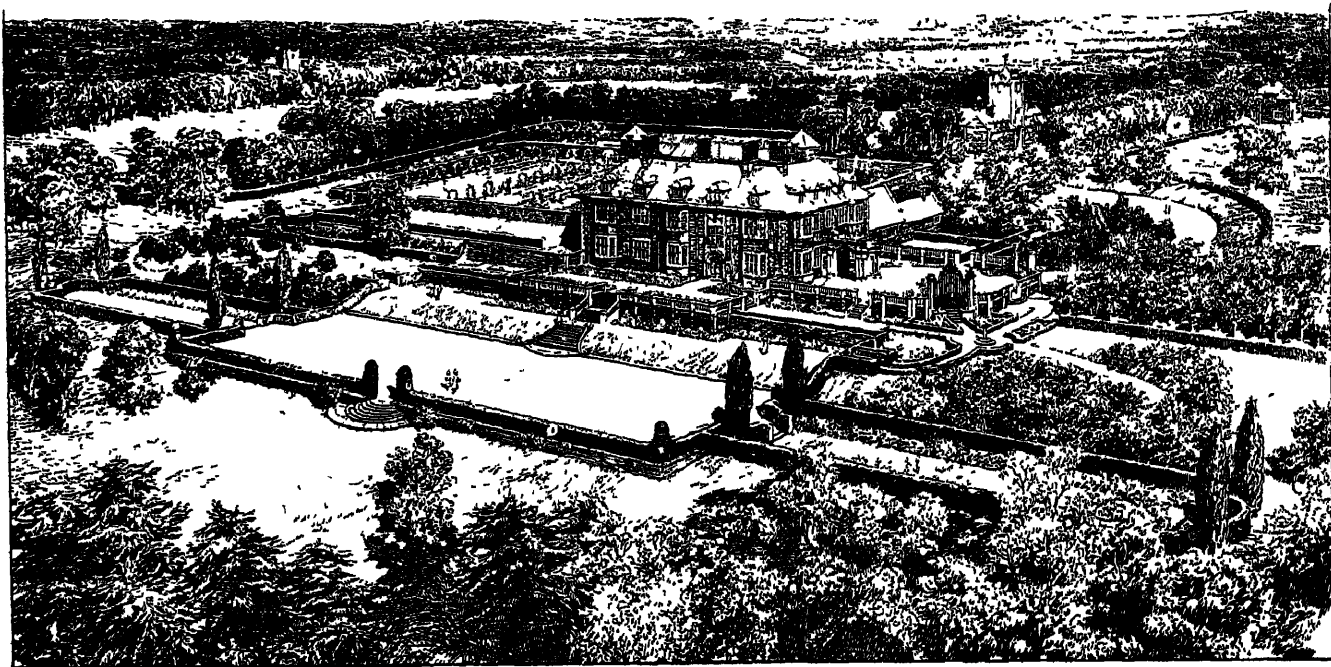


FIG. 466 —PERSPECTIVE VIEW OF THE GARDENS, DUNCHURCH LODGE, SHOWING ENVIRONMENT

Such surroundings could not fail to be inspiring. The new domain is less than a hundred yards from the centre of the little town, and is sufficiently screened from it to prevent any clashing of new and old until the former shall have been clothed, by Nature and the hand of Time, with that beauty which it is impossible to create at first hand, but which we may do so much to promote

The situation is unique, for the windows of the mansion overlook a stretch of typical English landscape. As will be gathered from the plan and illustrations, the ground slopes away sharply from the main garden front of the house, and from the terraces across an open valley to rising ground beyond, which is beautifully timbered. To right and left stretch great sweeps of valley and rolling meadows.

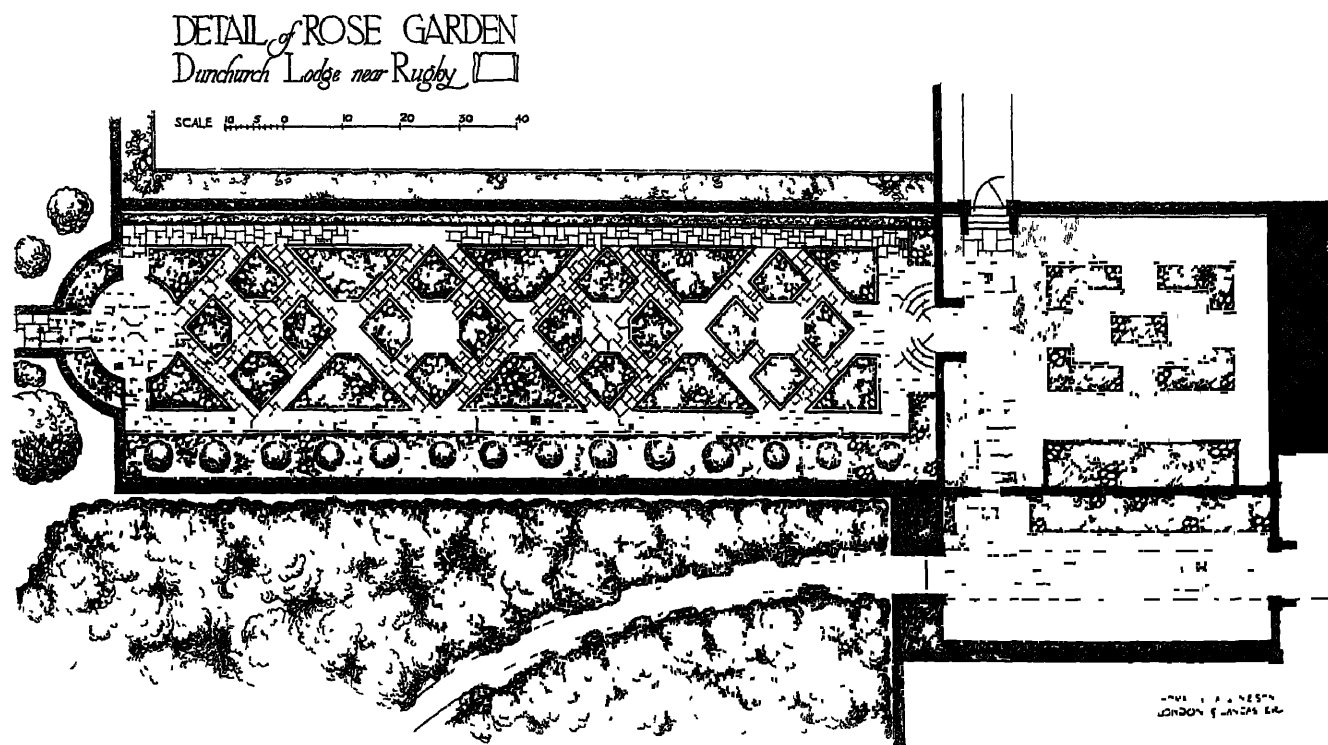


FIG. 467.

Such sweeping views and open prospects, while they are worth any sacrifice, naturally make sheltered parts of the garden difficult to obtain, and so, in a case like this, we

have a dual task: to make the most of the open views and falling ground, and at the same time to prevent bareness and secure within the gardens snugness in all weathers. How this has been done will be seen on examining the plan in detail

*A new  
country  
seat.*

The original approach was from Dunchurch, as marked near the top left-hand corner of the plan, but the drive has been carried across a stretch of country in a north-westerly direction until it joins the Rugby road, terminating in the pair of estate workmen's cottages illustrated No 28. The necessity for placing the main façade and entrance arch of the stables on the drive, and the contours of the ground, have together indicated rather an unusual treatment for the main drive. As will be



FIG. 468—THE ROSE GARDEN, DUNCHURCH LODGE, NEAR RUGBY.

seen from the plan, it has been constructed in the form of a straight and severely symmetrical double avenue between the entrance gates and the open space in front of the stable block, and from there it follows the contours of the ground in a boldly sweeping curve, the point where the change is made being marked by a gateway. It is only the exceptional nature of the contours which makes such an arrangement possible. The ground between the entrance and the stable block is perfectly flat, and a sudden dip, at the point where the gate divides this part of the approach from the curved portion, prevents the whole being seen at once, and so insures that the two styles shall not clash.

As will be seen, the circular carriage turn is treated in a strictly architectural manner, with surrounding walls and handsome wrought-iron gates symmetrically placed, one pair giving access to the drive and the other to the pleasure grounds. Between the two is a narrower gateway on the axial line of the carriage court and the porte-cochère, through which the eye is led along a green path between an avenue of trees to a summer-house.



FIG 469 —THE MAIN TERRACE, DUNCHURCH LODGE, RUGBY.



FIG. 470.—THE CROQUET LAWN, AND DOOR TO KITCHEN GARDEN, DUNCHURCH LODGE.

with a small lily-pond in front. This in turn is backed up by a group of well grown timber trees, which were already on the ground when the gardens were designed, as were a number of the other trees shown on the plan at either side of the drive

*A new  
country  
seat.*

Passing from the carriage court through the wrought-iron gate connecting with the pleasure grounds, we come immediately into the small octagonal paved sundial court shown in illustration No 469, which connects with the paved upper terrace and forward to the paved rose garden and lily-pond court, and thus a considerable stretch of paved promenade of varied interest is obtained, which will be available when other parts of the grounds are too damp.

A good idea of the appearance of the main front of the house is given by illustration No 340, which fittingly is inserted in Chapter XX, especially if examined together with the plan of the grounds. As will be seen, the point of view is from the extreme end of the grass walk to the west of the tennis lawn, which gives the lowest of the three terrace levels its special purpose in the scheme. All three terraces are contrived with a view to giving the main façade of the house the strong broad base which both its setting and its architecture demand, and the long grass walks between herbaceous borders which flank the lowest on either side emphasize this in a marked manner. The decided cross lines thus created again demand complementary treatment, which is obtained by emphasizing the axial line through the centre of the building and the flights of steps connecting the terraces, by means of the lily-pond, summer-house and water steps placed at a little distance at the foot of the sloping lawn, which recedes from the lowest terrace. This summer-house closes the garden vista in this direction, and thus all the features of this side of the house are given connection and welded into a complete and self-contained scheme

On the west side of the mansion are two features specially deserving of notice. The first is the rose garden, of which an enlarged plan is given (Ill. No. 467), and which is also shown in the photographic view in illustration No. 468 though a little of the effect is left to the imagination, as the newly planted yew hedges will have such a very different appearance when grown and trimmed to a straight line. It is of these two gardens we spoke when referring to the need of shelter in a domain newly formed on ground commanding extensive views. When the hedges are grown, they, together with the fruit walls on the north, and the house to the east, will make them delightful for use in the early and late summer when the terrace garden and open lawns on the south front of the house are too exposed to cutting winds for comfort. The pond garden has quite a cloistral appearance, enclosed as it is by walls or buildings on three sides, with its severely plain treatment, its rippling water, and the little terrace, while the vista down the bowling alley prevents any suggestion of its being too shut in.

To the north and north-east of the house we have the kitchen garden, frame ground, orchard and paddock. The first of these is shown in illustrations Nos. 343 and 466, and here, with the inspiring help of a sympathetic client, I have tried to materialize all those ideas which have been so strongly insisted on in the Chapter dealing with kitchen gardens, by making it one of the most attractive parts of the domain without in the least impairing its usefulness. The main path of the garden strikes the keynote of the design. While nothing is introduced which has not a directly obvious utilitarian purpose, every effort has been made to give each feature interest by the use of suitable material and correct proportion and balancing of parts. Thus the little range of glass-houses is made additionally attractive by the symmetrically designed gardener's office at one end, and fruit store at the other, the former being clearly seen at the end of the walk in the illustration No. 343, and the latter in illustration No. 360. These have been built of a purple-brown brick and oak wood-work, a local note of the right colour to form the best possible background to the green foliage and pale pink and white



## EXAMPLES OF GARDEN DESIGN.

blossom of the fruit trees ; and the same material is seen in the fruit walls, which have a quaint coping of flat and half-round tiles.

### THE GARDENS AT DUFFRYN, NEAR CARDIFF, SOUTH WALES.

Duffryn was built about forty years ago by the late Sir John Cory, the well-known philanthropist, whose statue now adorns Cardiff's famous civic centre

The Duffryn estate, which is situated about seven miles south-west of Cardiff, is extensive, mostly undulating pasture lands, picturesquely timbered with forest trees, many of which are of great age, possessing all the beautiful characteristics which centuries of our moist climate, with its alternating wind and rain, alone can impart. Modern forestry has not, however, been neglected, and there are about one hundred acres of vigorous young plantations, composed for the most part of Larch, Scotch Firs, Sycamores and Elms, growing with vigour. In addition there is an experimental fruit farm, run on scientific principles, on which almost every well known variety of apples, pears, plums and cherries has been tested.

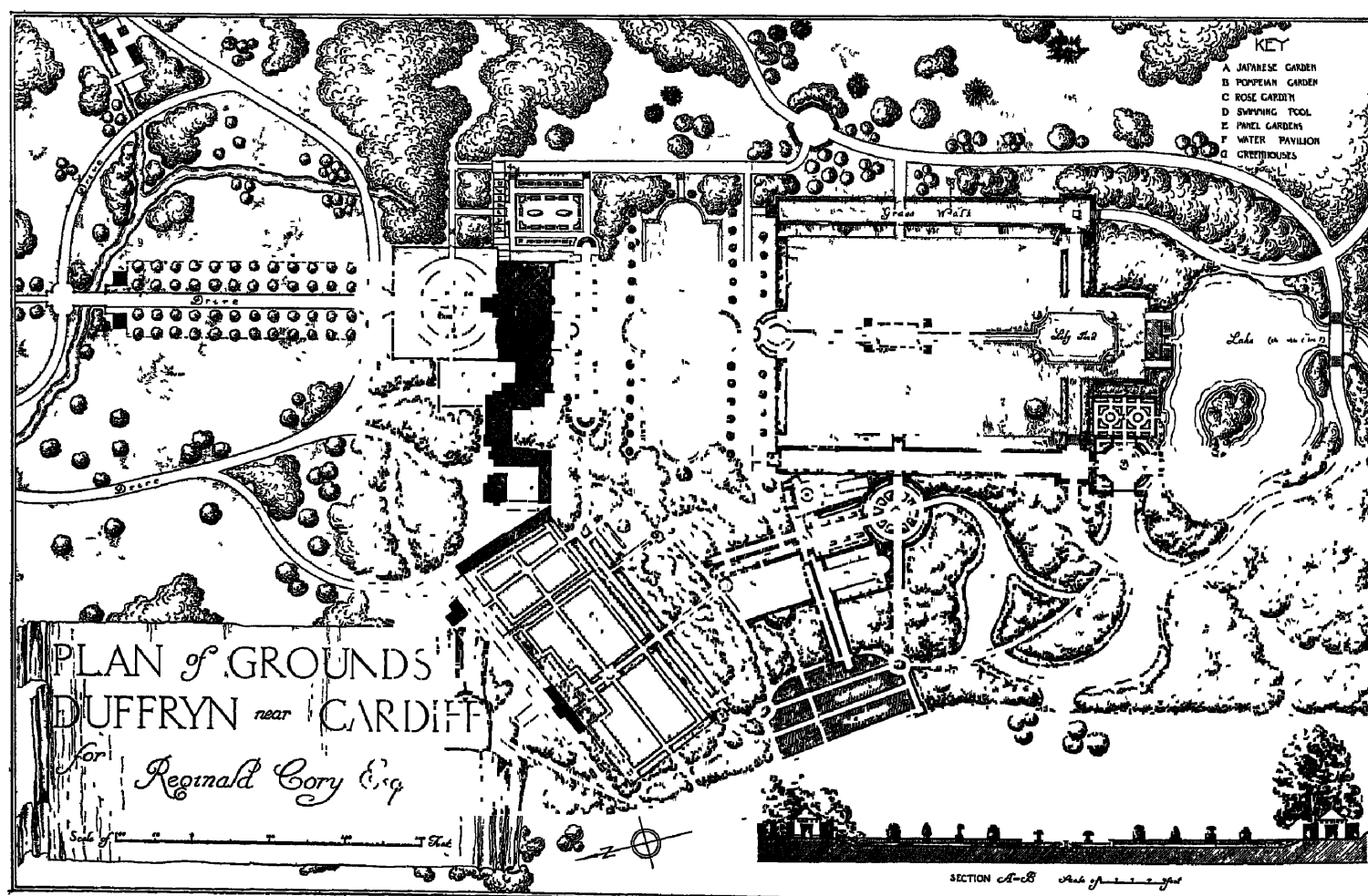


FIG. 471.—PLAN OF GARDENS AT DUFFRYN, NEAR CARDIFF.

The estate included the charming old-world village of Duffryn, with its quaint church, whilst a new village, illustrated and described in my work on "Civic Art," has been begun on the western boundary of the property some three miles distant.

Duffryn stands in a sheltered valley, almost in the centre of the domain, which, however, does not command any of the splendid prospects afforded elsewhere on the estate ; there were, however, associations attached to the site outweighing all those important considerations which usually operate in the choice of a site for a large mansion like Duffryn.

The design of the residence is reminiscent of an Italian villa as interpreted by English architects forty years ago, and may be described as a picturesque and even

stately pile. The entrance front faces north, with fine views across the park. The large and numerous entertaining rooms face east and south, whilst the kitchen and service wings are to the west. The south front is supported by a balustraded terrace, which is adorned in the summer time by myrtles and other plants requiring shelter in this climate during the winter months. At the east end of the house is arranged a formal panel garden, and on the south front a large sunken tennis lawn. The vegetable and fruit garden, enclosed by high fruit walls, was laid out on the higher ground beyond the service wing. The remaining part of the garden, as originally laid out, consisted of the usual winding walks with shrubberies and lawns dotted over with specimen trees.

On the death of Sir John, the property passed to Mr. Reginald Cory, the youngest son, and his sister, Miss Cory, and although the broad outlines of our scheme had been approved, it was principally during this joint ownership that the extensive improvements described were carried out.



FIG. 472.—THE LAWN AT DUFFRYN, NEAR CARDIFF.

Mr. Reginald Cory is a typical example of the English enthusiast for horticulture and arboriculture at its best. He is a member of the council of the Royal Horticultural Society, a liveryman of the Ancient Guild of Gardeners, a well-known writer on horticulture, and an experimenter whose researches have greatly enriched our store of knowledge in a vastly interesting field of human enterprise. His collection of dahlias, to name but one class of popular flowering plants, includes over six hundred varieties; and his collection of conifers and ornamental and flowering shrubs has been brought together from every quarter of the globe. To-day the gardens extend to about fifty acres.

Our work at Duffryn has consisted, in the first place, in the preparation of a comprehensive design for the central and more important part of the gardens, and to the detailing of special parts, but many other developments have been evolved by our client, himself an amateur landscape architect, a keen draughtsman and expert planter.



## EXAMPLES OF GARDEN DESIGN.

The work of planning began with the improvement of the approach roads and the design of a carriage court, supported by balustraded wall with wrought iron entrance gates on the park side; the east side of the court enclosed by a high wall architecturally treated, and the west

side by the service wing, which in turn has its own service road and space for turning. Although one of the first parts of the scheme to be planned, this will probably be the last section to be carried out.

Our next care was to plan a great lawn extending from the old part of the garden on the south front, the object being to gain a sense of scale, a restful base to the house and a compensating



FIG. 473.—BATHING POOL AT DUFFRYN, NEAR CARDIFF

expanse of view from the principal rooms, to make up for the lack of more distant landscape views. To secure variety, we formed a long central canal and lily pond, extending from the second balustrade to a small lake, to receive which we made use of a natural depression. The end of this canal is to be completed in due course by the erection of a water pavilion overlooking the lake. To ensure the success of this part of our plan, we diverted a running stream which ran down one side of the lawn. This had to be carried for a part of its length, beginning at the intake at "A" on plan, to point marked "B," in a reinforced concrete culvert, but we made provision for diverting the storm floods, which at times are very strong. The general effect of this great lawn is shown on Illustration No. 472, and by the cross section on plan shewing the raised banks on each side, with hedge enclosing the central part of the garden. To the east and west we felt at liberty to indulge in every phase of garden design which the site and my client's catholic views suggested. Thus we have Japanese and rock gardens, rose gardens, Pompeian

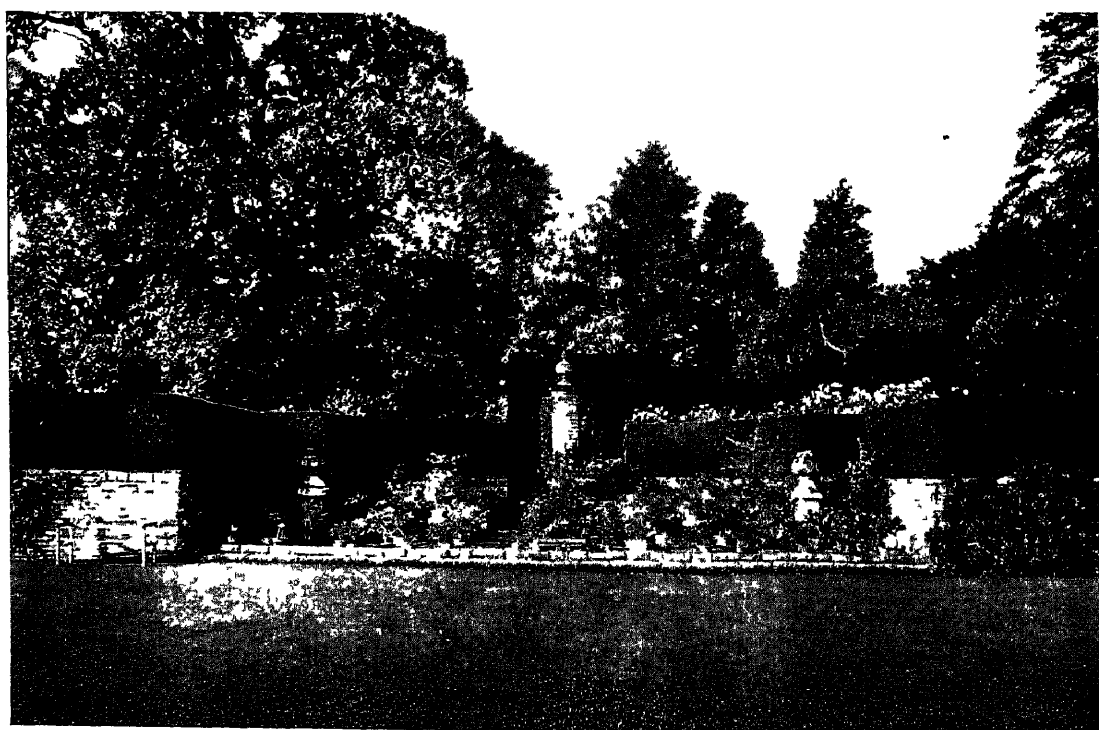


FIG. 474.—EXPERIMENTAL GARDEN AT DUFFRYN, NEAR CARDIFF

gardens, cloistered and terraced gardens, pond gardens, shrubberies and lawn gardens, Iris gardens, herbaceous borders, fruit and vegetable gardens, and lastly, but in some ways most important of all, the pinetum and experimental gardens

Naturally, deviations have been made in the plan from time to time, but in the main it has been followed. It is true there are startling contrasts and surprises, but as each garden is enclosed in its own screen of architecture or foliage, it seldom clashes with its neighbour.

The illustrations show new developments at the west end of the south front. Beyond the pillared sundial and steps, a walk leads off through the yew hedge in the direction of the kitchen garden and the herbaceous borders. There is a fine collection of Japanese plants arranged on the paved platform and the steps as depicted in Illustration No 474.

The circular Rose Garden on the west of the great central lawn, and other parts of the gardens are wind protected by a number of yew hedges, some of which are pierced to permit of extended vistas



FIG 475 —POMPEIIAN GARDEN AT DUFFRYN, NEAR CARDIFF.

Illustration No. 475 shows the Pompeian Garden, arranged about 3 ft. below the central path. The roofs of the colonnade are utilized as roof gardens.

Illustration No. 473 shows the bathing pool, combined with a panel garden to the west of the central walk leading to the rose garden. These latter two gardens were planned by Mr. Cory.

To the south of these last three gardens are two other garden courts, one surrounded by an open brick arched cloister with a view over the lake, and the other as a trellis garden with the somewhat unusual treatment of raised beds planted with dwarf lavender and baby roses, whilst in both this and the previously described garden, water lily troughs have been arranged as part of the design. These are now planted with a collection of the newest hybrid nymphaeas

It is always difficult to convey by photographs a proper conception of landscape garden design, because so much of the effect depends upon the colour and general form of growth. It should also be remembered that a garden of this character tends to become more or less an arboricultural museum. Notwithstanding it has been proved possible at Duffryn to obviate this tendency by deftly adjusting the landscape environment, and by adding other features, thus diverting the mind from the several units and weaving them into one cohesive whole.

#### GARDENS ON A FLAT SITE.

Little Onn Hall is situated about eight miles from Stafford, and three miles from the village of Gnosall, which is the nearest railway station. The present mansion has

# EXAMPLES OF GARDEN DESIGN.

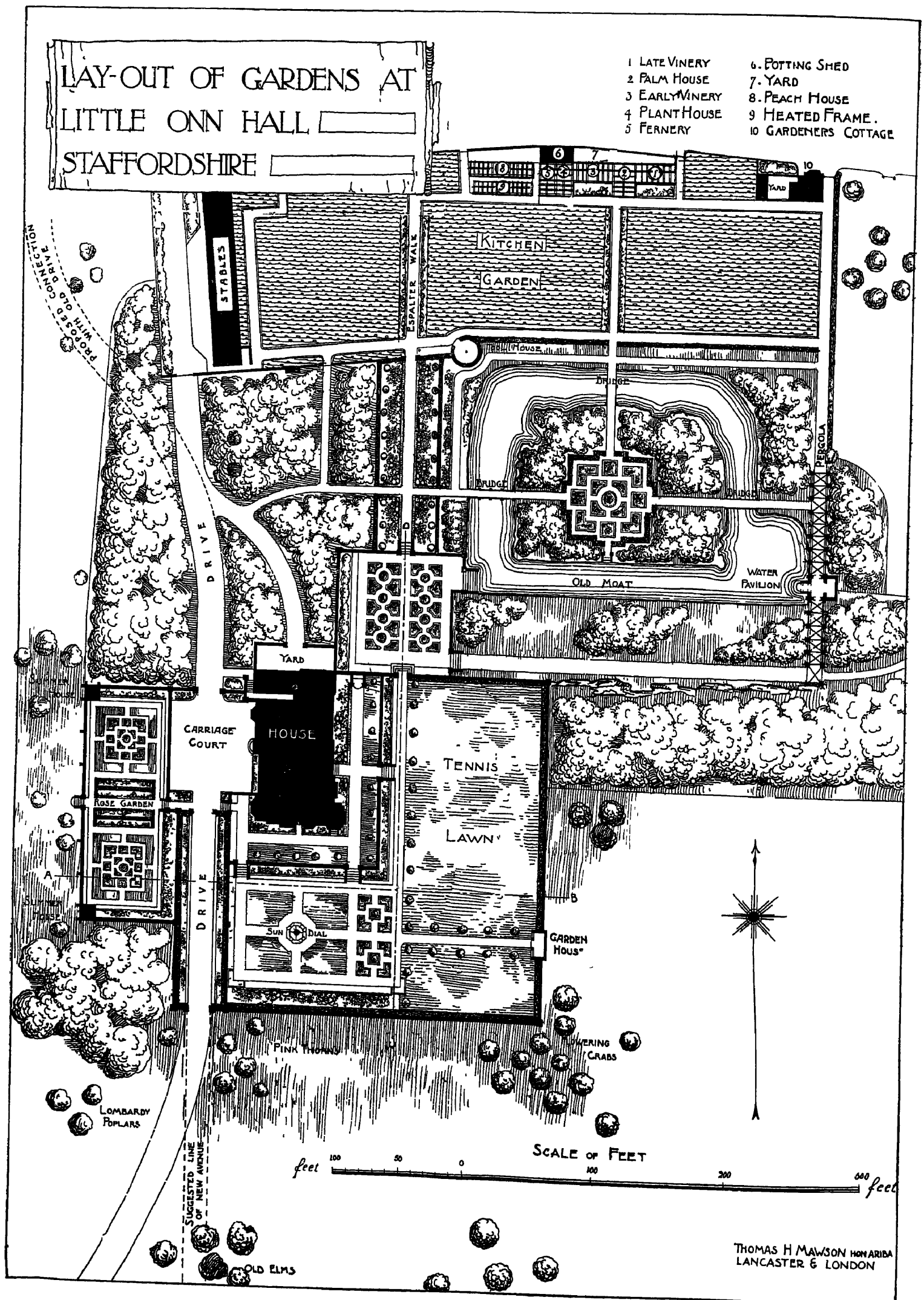


FIG. 476.

## EXAMPLES OF GARDEN DESIGN.

recently undergone considerable alterations and additions, a new entrance hall and billiard-room having been added, and other portions of the house remodelled. The older portions of the hall, built about 25 years ago, did not possess any great architectural merit, but the present completed building, which is in stone, has character; the numerous gables, each furnished with corbie steps, the stone mullioned windows, and the large climber-covered wall-space, making a very pleasing centre round which to form a garden.

*Gardens on a flat site.*

The house covers a somewhat large area, the billiard-room, hall, and one end of the drawing-room facing west, the drawing-room and dining-room having one side to the south, the latter room and also the library being lighted principally from the east. From this it will be seen that the entertaining rooms and hall occupy three sides of the house. The site upon which the whole has been erected, and for a considerable distance round it, is practically flat, but the ground floor of the house had been very wisely raised some four feet above the general level, thus allowing of a terrace which is carried round the south and east fronts. In addition to the four feet gained by raising the mansion, the ground falls about five feet to both west and east; the level of

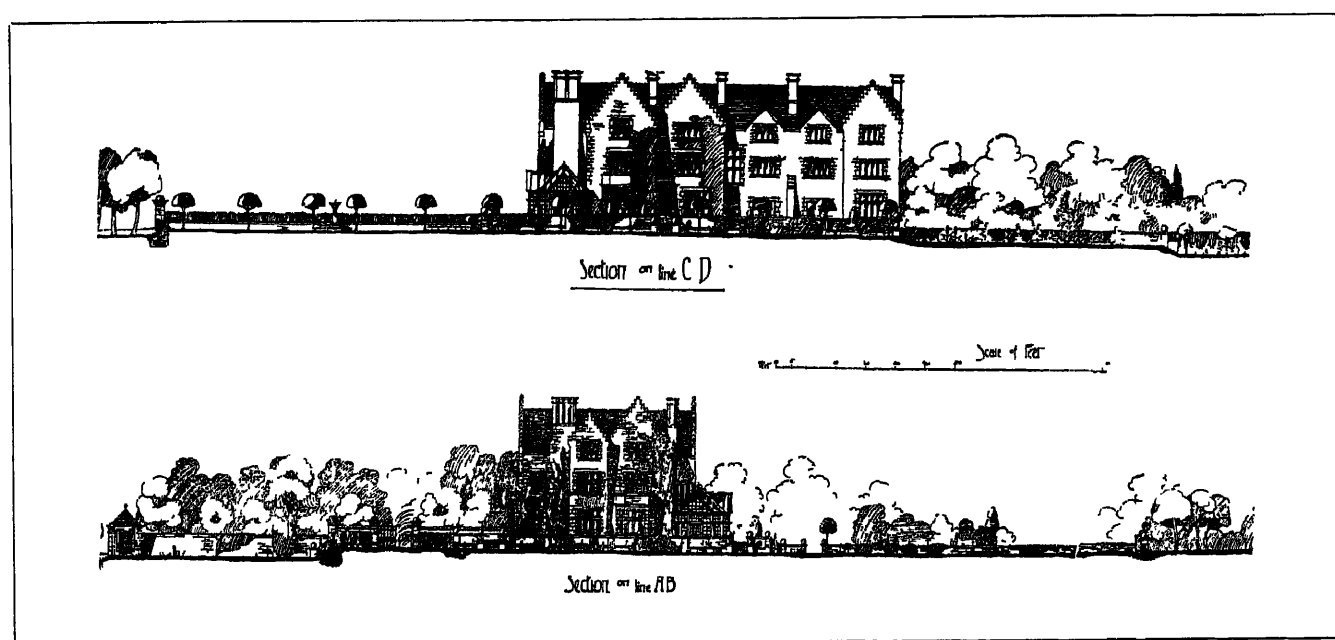


FIG 477 —SECTIONS THROUGH GROUNDS AT LITTLE ONN HALL.

the kitchen gardens and of the lower step into the rose garden being almost the same. On account of this rise in floor level, and of the fall to the park and kitchen garden, the Hall looks much more elevated than it did before the commencement of these improvements. To gain a clear idea of this change of level, two sections are here given; section A.B. showing the terrace to the south, the drive and the rose garden, and section C.D. the terraces and flower garden to the east side of house

Only two portions of the present scheme existed prior to my being consulted. These are the kitchen garden and the moat or pond, both of which, as shown on the plan, are slightly altered. The moat seems at one time to have surrounded monastic or other important buildings, and to have been stocked with fish. The old fish stews, divided into five compartments, still remain, and are carefully preserved.

Before this work was carried out, the house had the appearance of growing out of the ground, without any architectural supports or base. In rocky hill country this may be suitable, especially when it reposes on a cliff or rocks; but in a level country the arrangement is apt to give the building a depressed appearance, and suggest dampness.

It will thus be seen that in designing these gardens the improvements to be aimed at were, first, and most important, to give elevation and base to the house, secured, as



FIG. 478 —ROSE GARDEN, LITTLE ONN HALL, LOOKING TOWARDS THE HOUSE.



FIG. 479.—LITTLE ONN HALL, VIEW FROM WALL OF CARRIAGE COURT.

has been suggested, by an arrangement of terraces ; secondly, to impart plenty of colour, which is provided by the rose gardens, flower gardens, and borders arranged for herbaceous flowering plants, finally, to unite the old kitchen garden and moat with the other portion of the pleasure grounds. The total area remodelled, including the kitchen garden, is eight and a half acres, and within this area considerable variety has been obtained, while the compactness of the gardens allows of their being kept in good order with the minimum of labour. *Gardens on a flat site*

In the park there are a number of fine old trees, mostly Oak, Elm and Sycamore, which were incorporated in the plan of the park plantations shown in illustration No. 403 ; also good young timber plantations between the north end of the house and the stables, and a fine belt of Beech of about 40 years' growth in the plantation near the moat, between the tennis lawn and the public highway, extending in width from the fence shown on the plan to the edge of the moat. This young timber had been much injured by a number of spruce, planted evidently as nursers, which were felled and replaced with undergrowths, consisting of Rhododendrons—especially *R. caucasicum album*, which is a capital grower in shade,—Azaleas, Lilacs, common Yews, Hollies and Brambles, with large patches of St John's Wort, Periwinkle, ground Ivy, *Vaccinium* and *Gaultheria*. Amongst these, again, are naturalised Snowdrops, Daffodils, wood Anemones, wood Hyacinths, American wood lilies, and other hardy spring flowers, while on the margin of the pond are planted *Iris kœmpferi*, *Iris florentina*, and all sorts of sub-aquatic plants. In the pond are planted a fine collection of water Lilies, water Hawthorn, *Nelumbiums*, &c.

In addition to the Yew and sweet Briar hedges, Irish Yews were arranged on the terrace, and also golden and common yews clipped into shape, mostly as squares or pyramids. The rose garden, which occupies such an important position between the carriage court and the park, is planted with old-fashioned varieties, such as the York and Lancaster, the old blush, China, and damask, musk and Macartney, all planted in masses ; and on the walls are choice tea and noisette varieties, which are all growing freely.

Some of the details are indicated on the sections, and these, in addition to those shown in the photographs, will give a good idea of the effect obtained in the several parts of this garden, and also serve to show the importance attached to architectural features in a level district.

#### A GARDEN IN GRANITE.

Although only completed eighteen months before it was photographed, this garden proves the soundness of certain principles already several times insisted upon—namely, that stone walls, of which some garden owners seem so afraid, may present great opportunities for effect, and that local materials and building methods should invariably be adopted wherever possible ; also that much ornamental detail is generally unnecessary, while such as is allowable should express as simply as possible the character of the constructive material. This garden is situated at South Tawton, Devon, the property of the late W. Lethbridge, Esq., on the borders of Dartmoor. The district abounds in a rough-grained granite, found lying on the surface of the surrounding moors and woods, and always beautifully weathered on the exposed face. It splits well, but is not adapted to fine dressing or small moulds, yet is most effective in squared blocks or columns, with walls built in rough rubble.

In the wall garden which figures in the end papers to the book, no dressing beyond rough scabbling was attempted, the crannies being filled with rock plants. The success of this work has inclined me still more towards simple retaining walls in preference to expensive pierced work and balustrades, which, though necessary to mansions designed in the grand style, are not essential to houses of moderate dimensions ; and the money thus saved can be more effectively expended upon tasteful modern sculpture.



EXAMPLES OF GARDEN DESIGN.

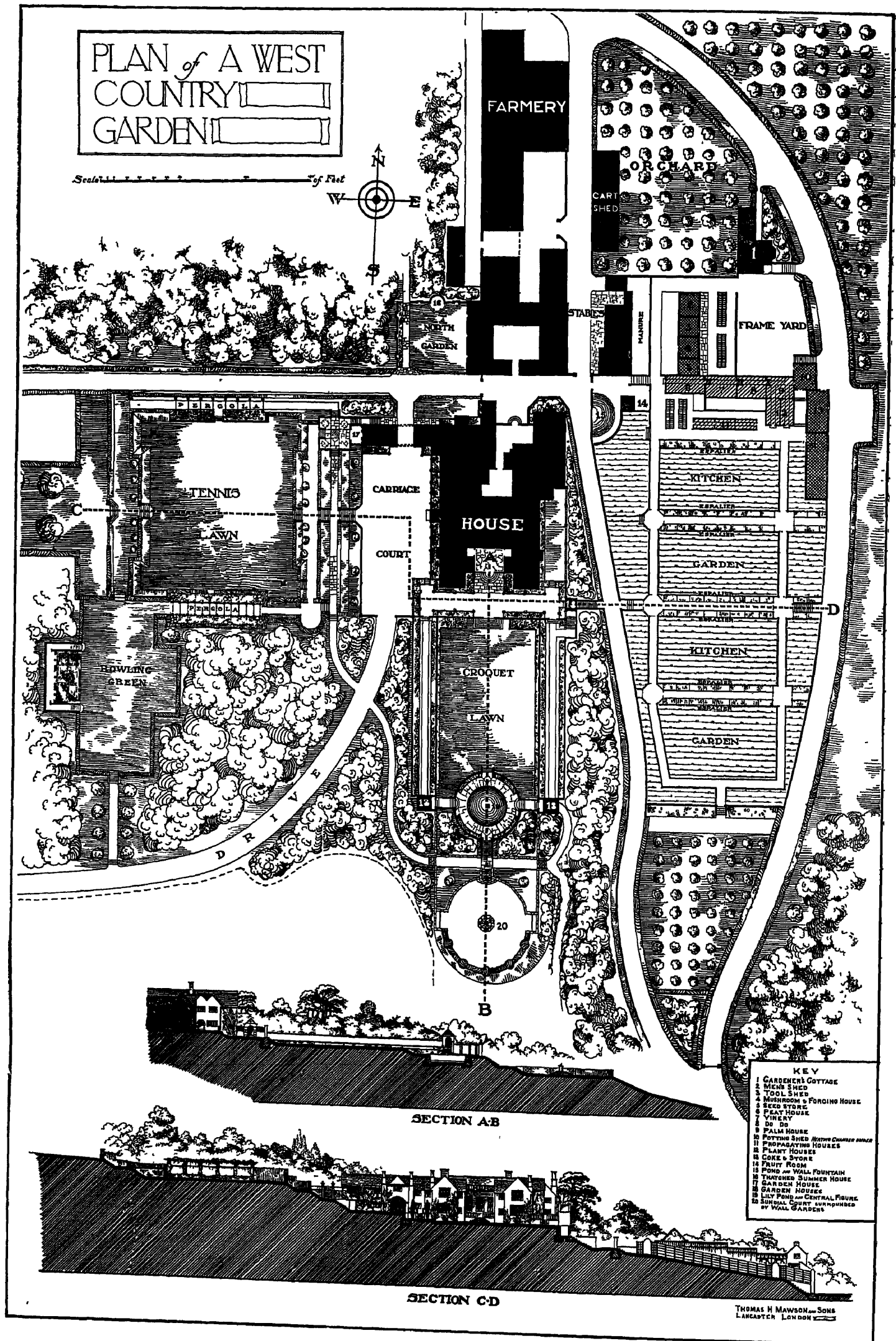


FIG. 480.

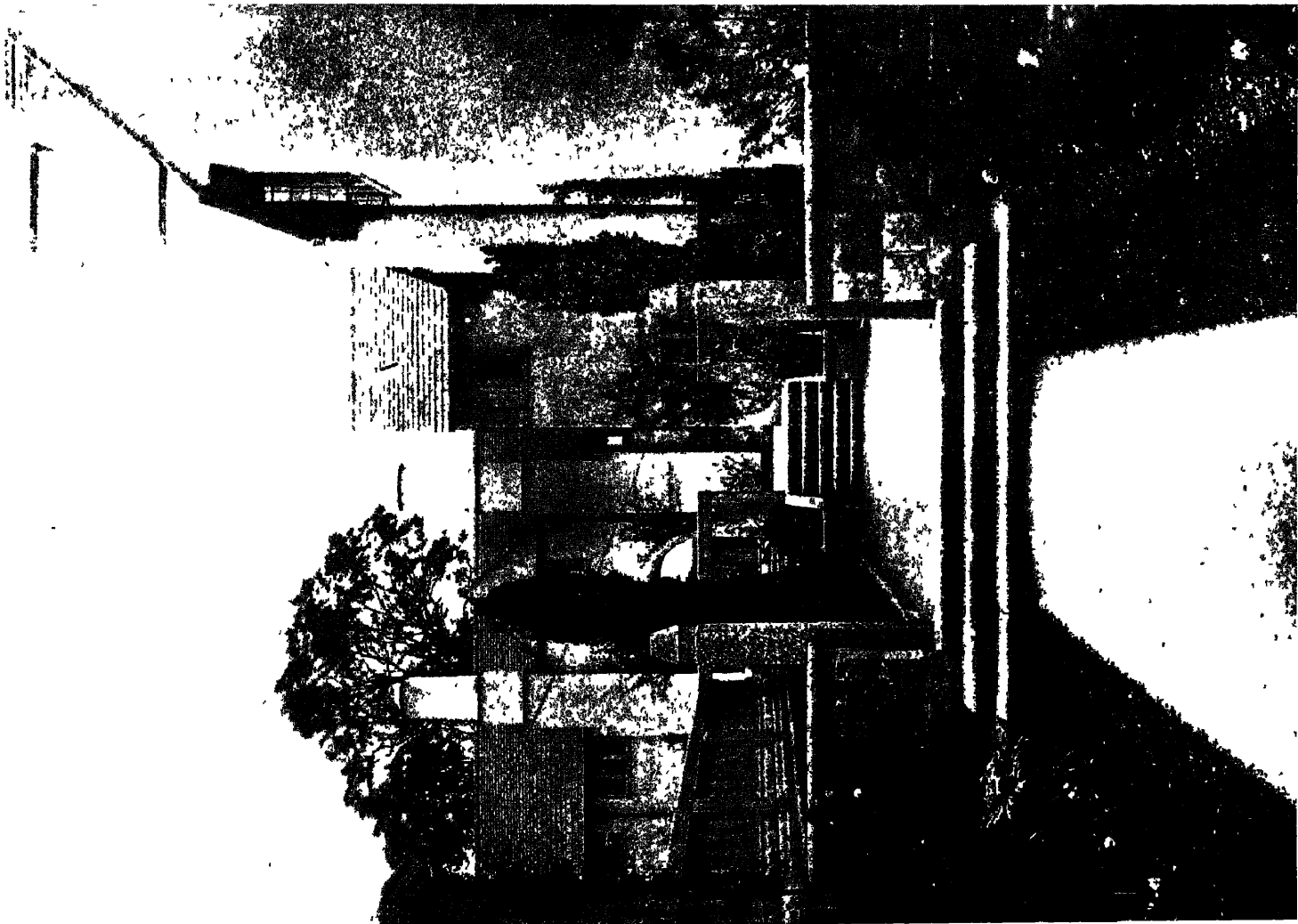


FIG. 482.—PATH FROM GARDEN TO CARRIAGE COURT, “WOOD.”

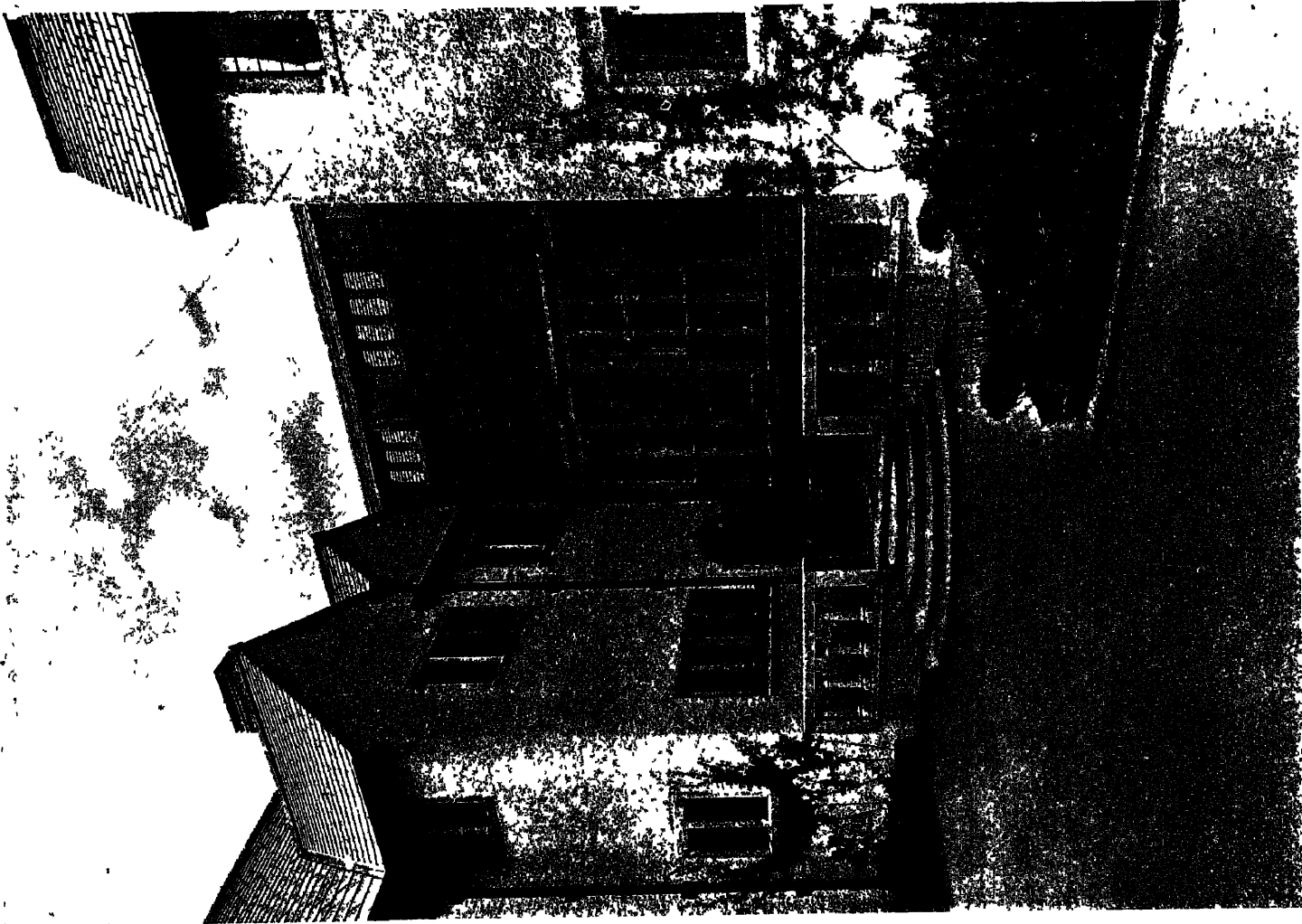


FIG. 481.—THE GARDEN ENTRANCE, “WOOD,” DEVONSHIRE.





FIG. 483 —TEA-HOUSE AT THE END OF THE GLADE, "WOOD," DEVONSHIRE.

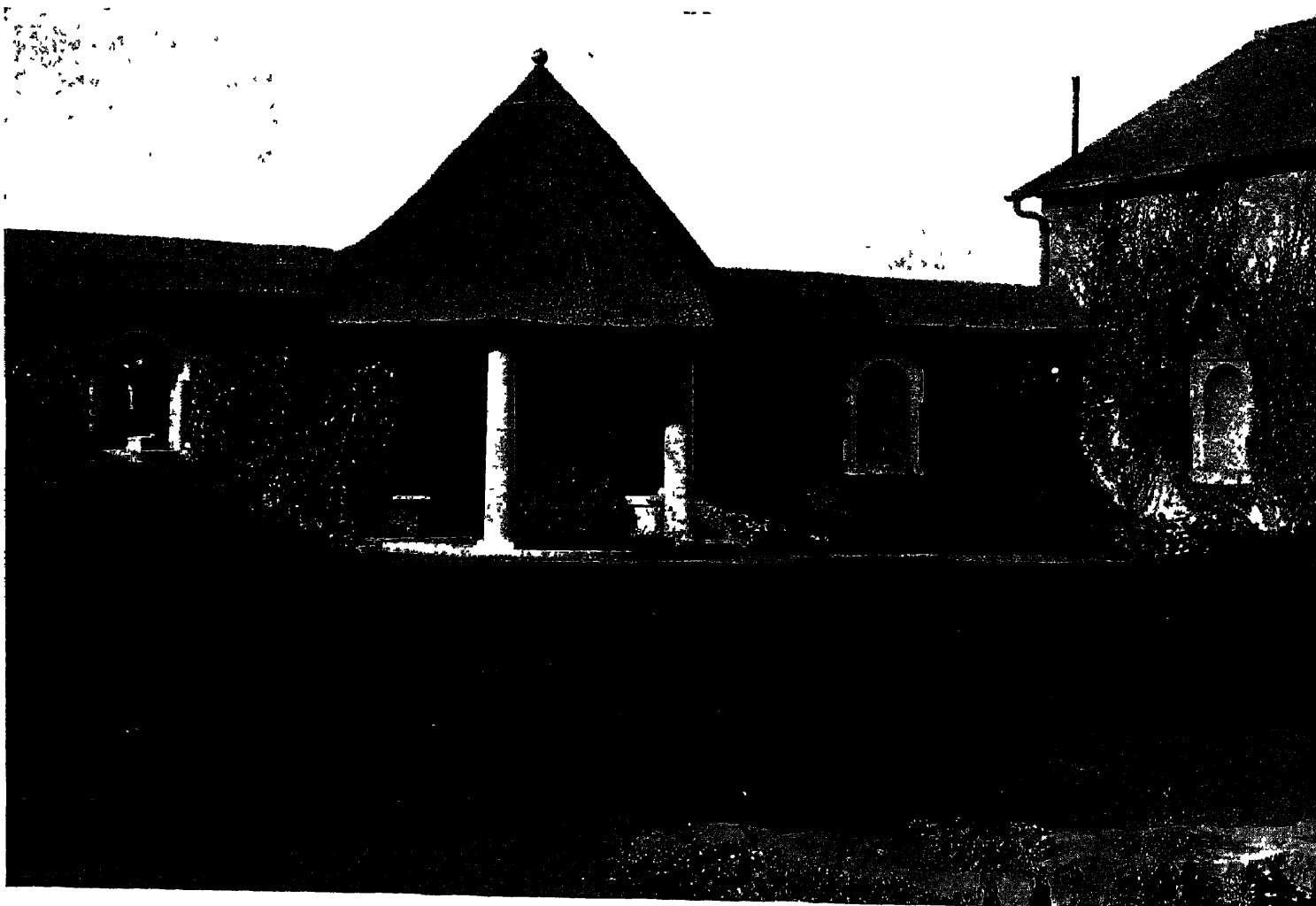


FIG. 484.—THE NORTH GARDEN, "WOOD," DEVONSHIRE.

I was called upon to advise on the improvement of the property before any serious plans had been made for the house or its setting, the owner having decided to improve the existing residence and to lay out new gardens, which were to incorporate the old kitchen garden and a lake formed by his predecessor in the valley below, both of which have undergone many alterations and modifications to bring them into harmony with the general scheme. Although the alterations to the mansion were so drastic that it might with truth be regarded as having been rebuilt, the retention of the original house formed part of the plans, the gardens having undergone entire reconstruction on a scale which bears no relationship to their original arrangement.

*A garden  
in a  
granite  
district.*

The first radical and necessary change was to bring the main house entrance from the south to the west, thus leaving the south front free for garden developments, and leave unbroken the delightful prospect, along the Tors of Dartmoor and the famous Doone Glen, to be viewed across stretches of restful lawn, unbroken by drives or gravelled spaces.

The plan and elevations of the residence were developed in a style distinctly homely, and somewhat symmetrically, with the masses agreeably broken by pleasing projections and wings, as shown by the accompanying photographs, the architect (the late Dan Gibson), whose influence is also traceable in one or two of the garden details, being appointed on my recommendation. A correspondingly massive and homelike effect has been sought in the gardens, nor is symmetry wholly absent.

To obviate expensive excavations, all sweeping changes of level were avoided. The two sections show that on the entrance front of the house the ground rises suddenly some 15 feet, this decided the width of the carriage court, which is as wide as the ground allows, and looks much wider on the site than the plan suggests, the central flight of steps leading to the tennis courts broadening the effect considerably. The grass terraces and tennis courts promise to be the most charming features in the garden, but cannot be presented photographically until the Yew hedges have had two years' more growth; for this reason a detailed description, with enlarged plans and cross-section of this part of the garden, are necessary to give an idea of the ultimate effect. Being on the west of the house and considerably above it, it was sought to keep this part of the scheme quiet and restful. There are therefore no flower borders, but broad stretches of quiet lawns surrounded by grassy slopes, and Yew hedges to be cut to shape, while at right angles to the entrance, and in a line with the steps rising with the natural level of the ground, stretches a wide open grass glade with cedars planted at either side, the end of the glade being furnished with an architectural pavilion or tea house.

The tennis lawn is one hundred and twenty feet square, thus giving room for two courts which may be placed either way, with recesses for seats and statuary representing the seasons. On the west of the tennis lawn is a wide raised grass terrace, a point of vantage for onlookers. The corner recesses make corresponding bastions on the outside, and therein are planted *Pyrus Malus floribunda*, with their graceful apple-like blossom rising above the sombre green of the Yew.

North of the tennis lawn, on a higher level, and partially screened by the Yew hedges, is a pergola with rough stone columns connected with the garden house, which in turn communicates with the upper floor of the mansion.

The stables and motor-house are on the north, as is also the service road, but, as tradesmen generally use the road through the stable yard or by way of the kitchen garden, the road which connects to the carriage court through the gate-house is little used except by visitors. The opportunity was seized to make a cool recessed north garden overlooked by the billiard-room, to the formation of which the plan of the house and the stable buildings lend themselves admirably.

On the south front the main object was to merge the house into the surroundings without harshness or discord, and, looking south from the house, to secure a pleasing

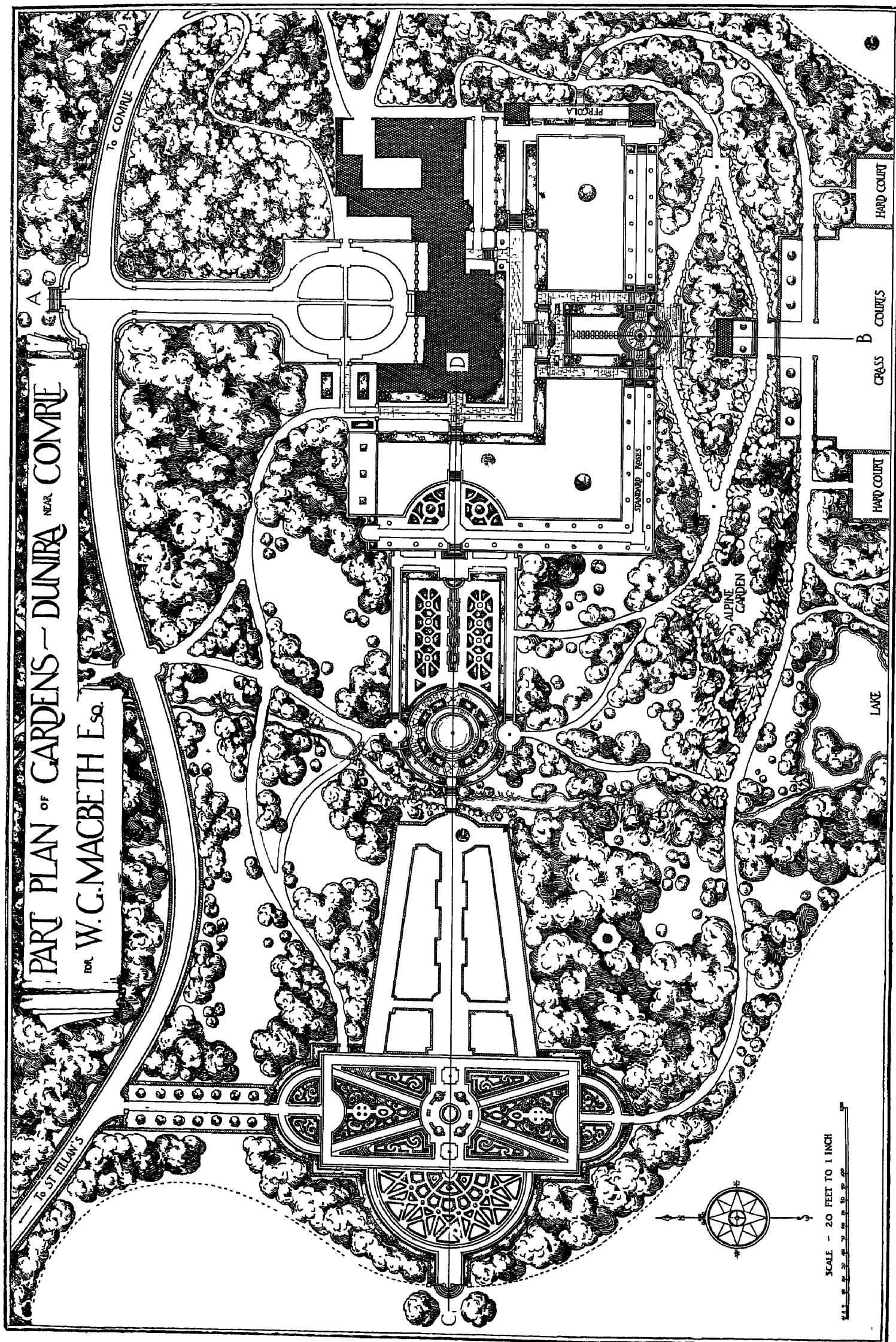


FIG. 485.

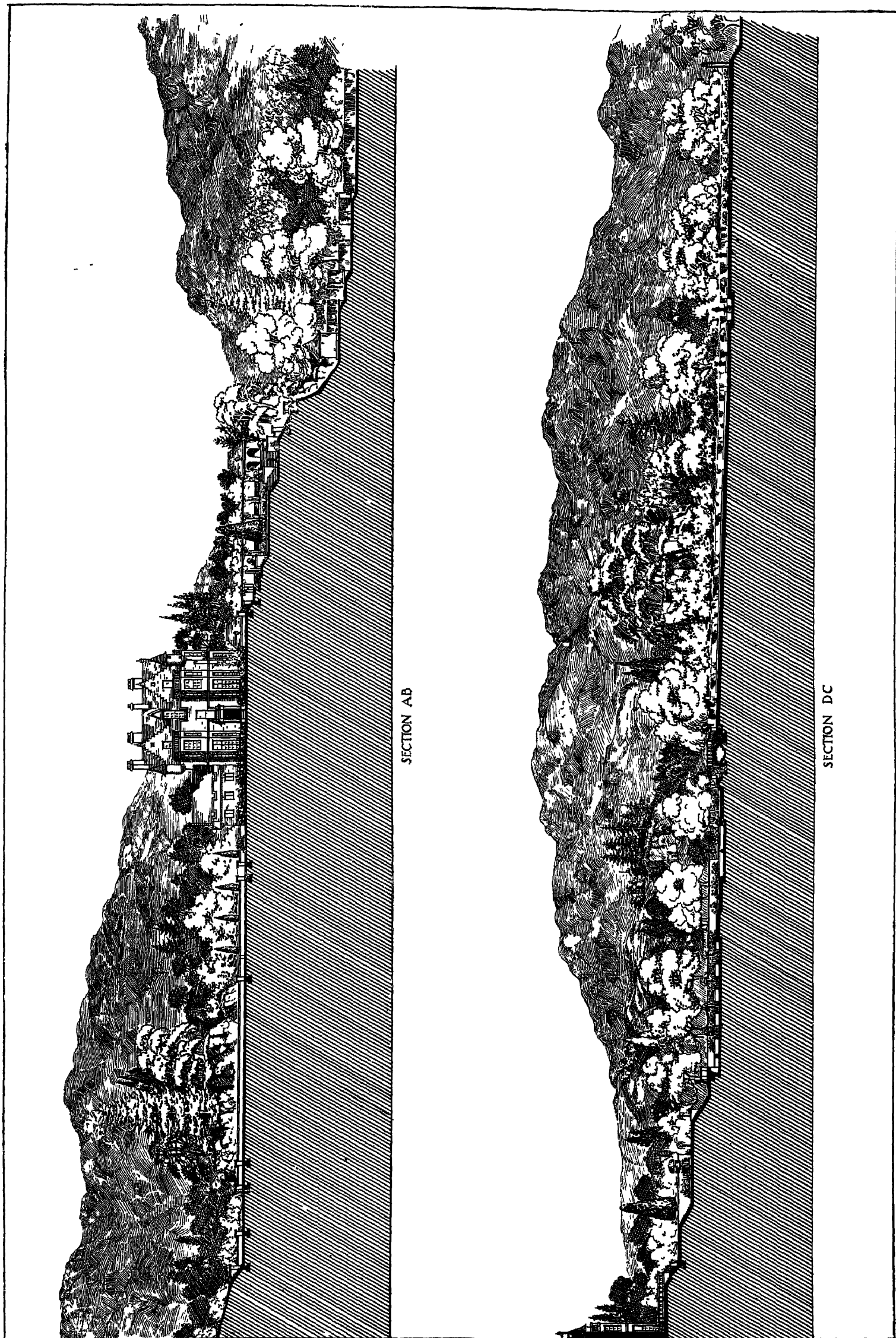


FIG. 486.

## EXAMPLES OF GARDEN DESIGN.

*A garden  
in a  
granite  
district.*

composition by means of a rich yet harmonious foreground to the beautiful landscape beyond (Ill No. 436). It was principally to secure the best results in this direction that the two garden houses were erected to act as frames to the picture, the fountain and figure being introduced to focus the interest surrounding the circular water-lily pond. The wide circular paved walk is reached on three sides by steps leading down to the pond. From the south side is a long flight of steps leading to the wall garden (Ill No. 305), one of the most successful parts of the domain, which is intended to mark the transition between the formal portion of the grounds and the landscape-garden and park, to which, and to the lake, the curved walk shown on the plan leads

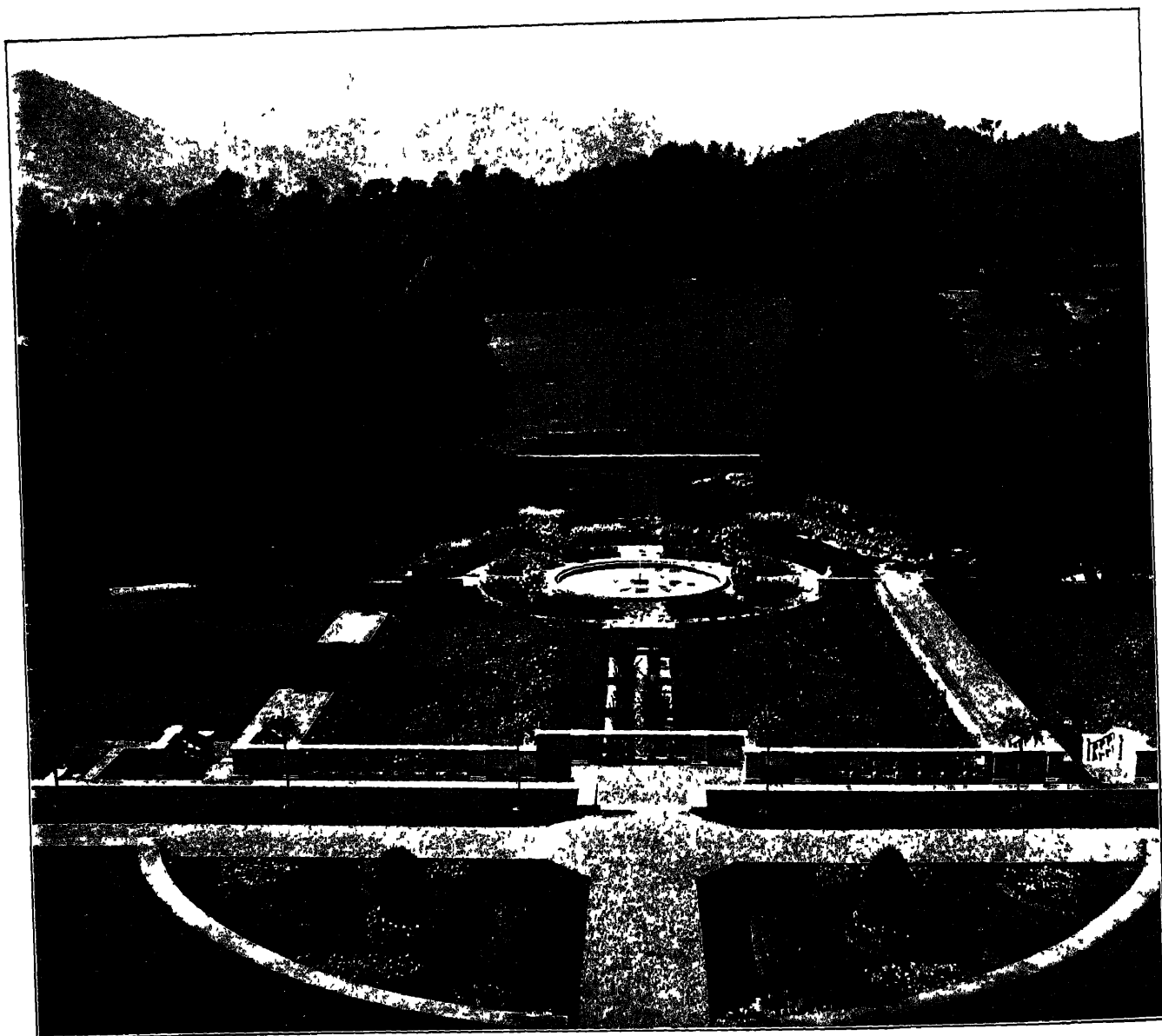


FIG 487 —DUNIRA. VIEW FROM UPPER TERRACE LOOKING WESTWARDS.

### A PERTSHIRE GARDEN

*A  
Perthshire  
garden.*

Dunira is an extensive property, recently acquired by W. G. Macbeth, Esq., reaching from the east of Comrie in Perthshire to within a mile of St. Fillans. The mansion faces the Arbruckle Hills, and is backed by the Dunira Hills, the river Erne flowing between them in an eastward direction. The estate extends to many thousands of acres, being practically encircled with mountains, their slopes suitably clad with timber, amidst which the Scotch Fir is the dominating note. The park comprises several hundreds of acres, being practically a level plateau at the foot of the encircling mountains, yet out of this level plateau rise somewhat precipitously a number of high, rock-bound mounds, which suggest that they were at one time islands and promontories rising out of a lake. When mist lies over the park it is easy to picture it as a large lake studded

## EXAMPLES OF GARDEN DESIGN.

with wooded islands, reminiscent of Windermere. It is one of the most famous sporting estates in Scotland

*A  
Perthshire  
garden.*

The large residence is erected at about the centre of the whole estate, standing on a foothill some fifteen acres in extent, which seems to have slid down from the mountains at the northern extremity. The level of this plateau is some eighty feet above the parklands.

The house is approached from the east, or Comrie side, by a drive about a mile and a half long; and from the west, or St. Fillans side, by a drive about a mile in length. Both drives are well engineered, and follow with graceful curves and easy gradients the contours of the landscape.

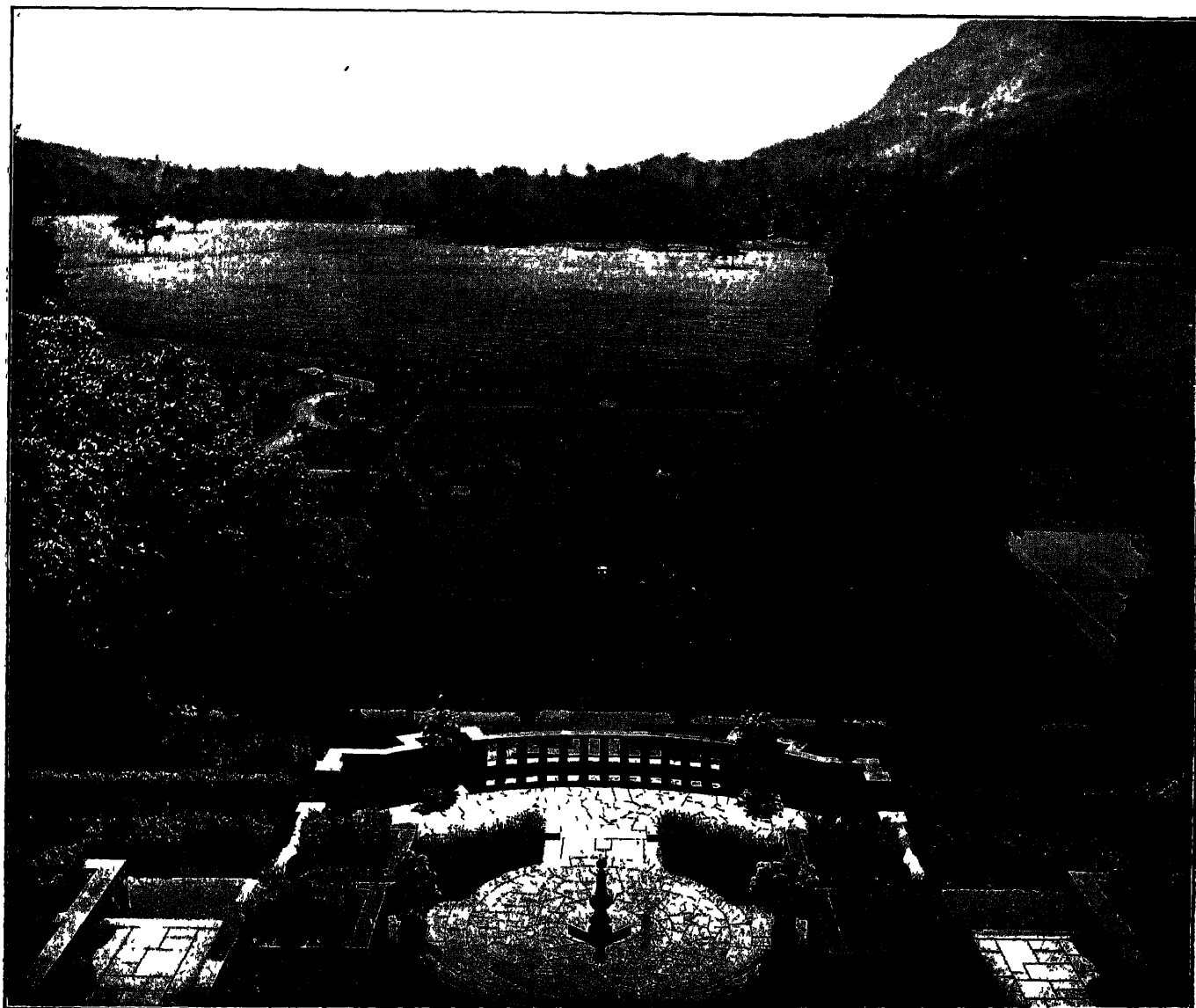


FIG. 488.—DUNIRA. VIEW ON SOUTH SIDE, SHEWING THE PARK.

The house is large and spacious, built evidently in the early Victorian days, and follows the then popular Scotch baronial type. It did not accord with my client's ideals, with the result that Messrs. Clifford & Lunan, architects, of Glasgow, were called in, not only to remodel the existing block, but add on the north side of the house a new billiard room and a new kitchen wing, framing respectively the west and east sides of the carriage court, each block standing equi-distant from the new central porte-cochère

Originally what passed for the gardens was a number of uninteresting grass slopes, unrelieved by flower beds or shrubs, devoid of interest of any kind. The precipitous bank at the verge of the park had been planted with Yew, Hollies, and timber trees, which, however picturesque when viewed from below, made a ragged outline when seen from the mansion, cutting off the view.





FIG. 489.—DUNIRA, CIRCULAR FLOWER GARDEN AND STREAM WEST OF HOUSE.

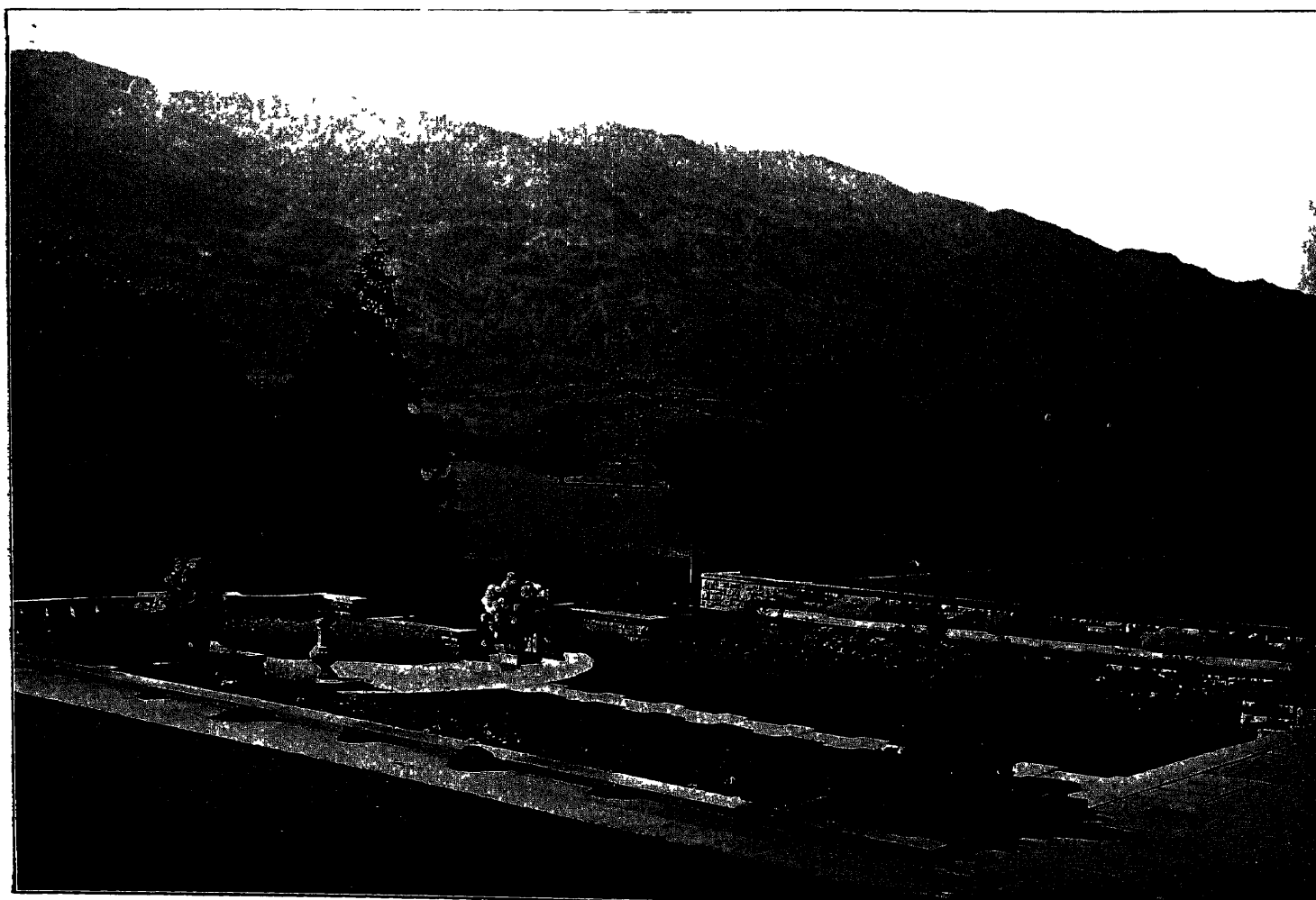


FIG. 490.—DUNIRA, VIEW OF GARDEN TO SOUTH OF HOUSE.

Looking at the house from the park, trees and shrubs, including a prolific quantity of Rhododendrons, had been liberally planted, forming a pleasing contrast to the mountain, and a suitable foreground to its afforested lower slopes. The line of the drive, as will be seen, runs along through these plantations

*A  
Perthshire  
garden.*

At about half a mile distant from the house, on its west side, are the stables, garage, and workmen's cottages, which now are grouped commodiously and picturesquely near the walled-in kitchen garden. This kitchen garden was brought up to date in conformity with modern horticultural science, and a most complete and extensive range of fruit and plant houses were added (see plan and photograph, illustrations Nos. 338 and 389).

My client, fully aware of the vapid character of the original gardens, instructed me to re-plan them in their character and extent as I would wish them to appear, no hard or fast limitations being imposed. These original plans have in the main been followed, the only important omission being the panelled rose garden which forms the western boundary to the gardens verging on the park. It is to be hoped that this much needed terminal will be carried through, its lack being specially apparent from a glance at photograph illustration No. 487.

Beginning near the house we improved the approaches and extended the carriage court on the north side. Next we secured an architectural base to the house on the west and the south by erecting a balustraded wall to take the place of the first grass slope, providing an ample width of steps leading to the lower ground. The remaining grass banks were replaced with retaining walls, built of the local black whinstone, without mortar, with yellow sandstone or grit stone coping quoins and pilasters set in cement to give it strength and stability. The crevices of whinstone walling were plentifully inset with Alpines and rock plants.

The towering rocky bluff which rises steeply from the parklands was cut in with diagonal and curving walks and steps leading down from the gardens to the six tennis courts (four grass and two hard) on the park level. At one place where these rugged pathways meet, a tea house is erected. The cross section 'A' 'B' shows the successive terraces and the steep bluff intersected with paths leading down to the tennis grounds on the park level. Illustration No. 488 shows part of the gardens along line of section 'A' 'B'.

On the west side of the house is a rose garden and lily pond, as shown on section 'C' 'D'. The lily pond is fed from a wall fountain by way of a narrow canal with symmetrical recesses planted with iris, reeds and similar aquatics. Illustration No. 487 shows this part of the scheme.

The feature most appreciated by Mr. Macbeth is the rocky stream which enters the gardens to the north, and passes out at the south beyond the rose garden, into the lake constructed below. This stream is made imposing by cascades and rocky promontories composed from the huge boulders freely scattered about the estate and unearthed in the excavations. These were manipulated with artistic skill, and impress everyone with a sense of rustic grandeur. Here the series of cascades and the rocky pools were so bold and effective that it was deemed advisable to subordinate all planting to the rock effects. (See illustrations Nos. 292 and 293)

It will be gathered from the sylvan effects shown in the photographs that Dunira possesses both the climate and soil favourable to all kinds of trees, conifers and all ornamental shrubs and flowers. Advantage has been taken of this fact to introduce plentiful yet harmonious variety into the plantations, shrubberies and herbaceous borders. The rock garden is also planted with choice Alpines.



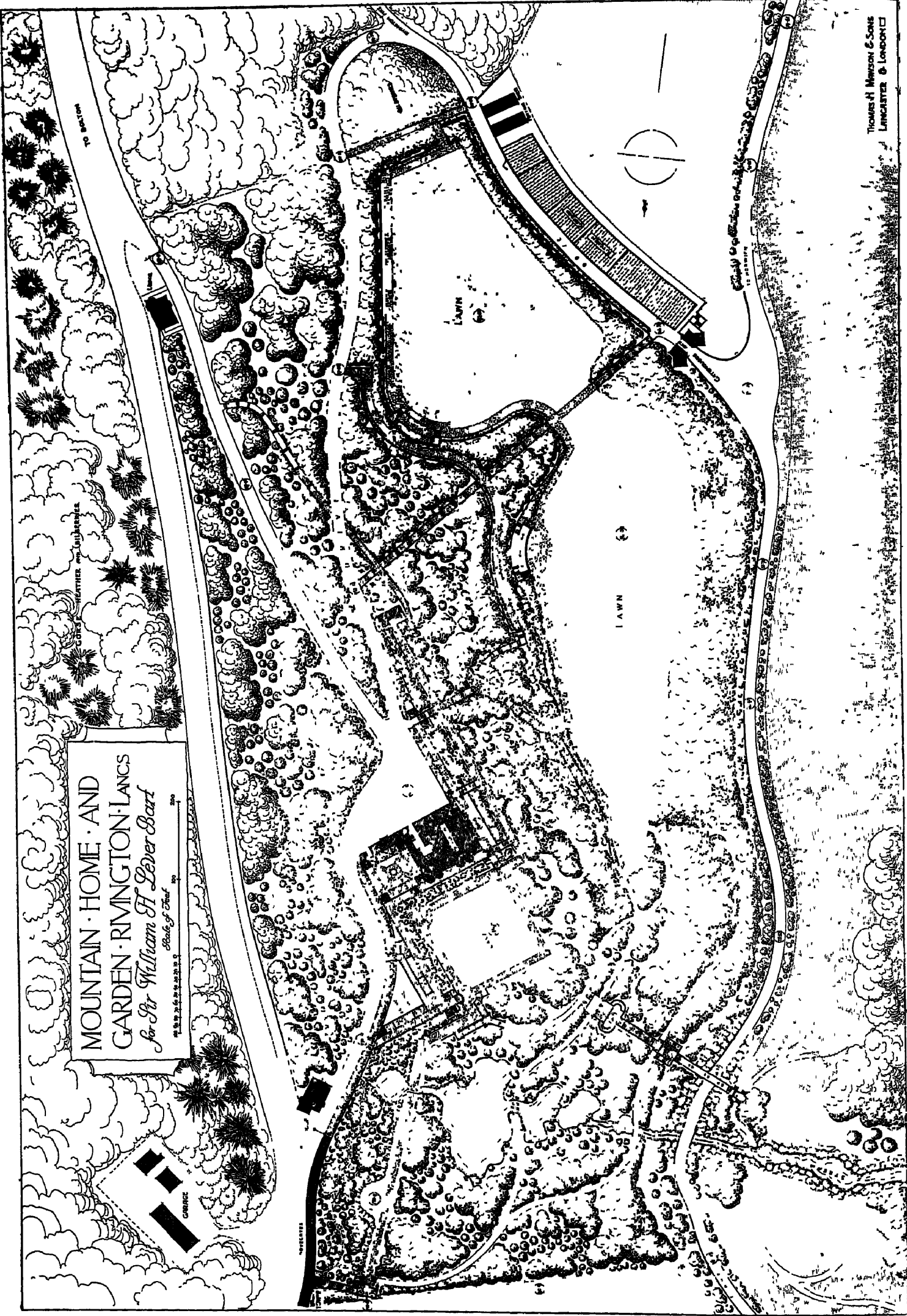


FIG. 49I.

A MOUNTAIN HOME.

It is an especial pleasure to describe the grounds to Roynton Cottage, the mountain home of the late Viscount Leverhulme, for, of all the gardens laid out by him, there have been few which have provided such scope for originality and at the same time such an incentive to grace the unique site and its surroundings, an incentive which was heightened and enlarged by the exceptionally sympathetic interest of the late proprietor.

Roynton Cottage, or "The Bungalow," as it is known locally, stands on the 1,000 ft. contour on the slopes of Rivington Pike, some six miles from his Lordship's native town of Bolton.

The approach from the town is by an ably engineered mountain road, decked with a plenitude of gorse and broom along its precipitous banks; the keen breeze blowing straight from the Irish Sea exhilarating the traveller

Arrived at the Cottage, and standing on the top terrace, a wonderful and rarely equalled prospect in its extent and variety lies before us. Immediately below, and stretching for several miles in the middle distance, are the huge Liverpool reservoirs, which assume the appearance of large natural lakes; beyond these, for those whose sight is good, are the Welsh mountains and those of the English Lake District.

The names engraved on the mounting for the large telescope on the terrace will give a more vivid idea of the range of view than any description. The more important of these, reading from south to north, are:—Warrington, Port Sunlight, New Brighton, Snowdon, Llandudno, Anglesey, Southport, Lytham, Douglas, Blackpool, Fleetwood, Wigton, Preston, Bowfell, Skiddaw, and Helvellyn.

The country all round the Rivington water-works, including the water-shed or collecting ground for the reservoirs, is, of course, preserved by the authorities in order to ensure that the supply be uncontaminated, and thus there is no fear of this wonderful prospect being spoiled by the erection of large works or other eye-sores. In addition to this, the late Lord Leverhulme had given a large tract of ground sloping into the valley, to his native town of Bolton for a public park, and it is being left largely in a state of nature, except for the formation of the necessary roads and other features, such as refreshment barns, essential to a park at such a distance from the town, so that it blends perfectly with its rugged surroundings.

There is an excellent electric tram service from Bolton to within a short distance of the park gates, so that, notwithstanding that it is six miles from that town, it is much appreciated and regularly used by a very large number of holiday-makers from Bolton, Chorley, and the other surrounding Lancashire towns.

Behind Roynton Cottage, on its easterly side, sweeps upwards the steep rugged fell-side to the summit of Rivington Pike, where it is crowned with a square

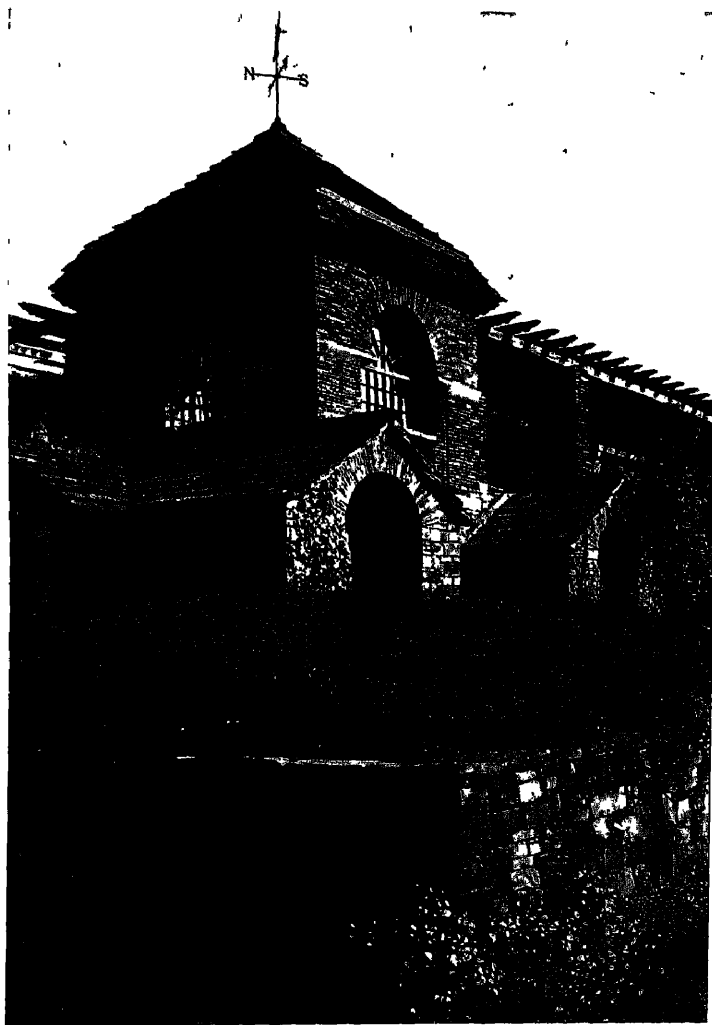


FIG. 492 —GARDEN HOUSE CONNECTING PERGOLAS.



FIG. 493.—VIEW FROM NEAR ROYNTON COTTAGE, FROM A PICTURE BY SIR ALFRED EAST, R.A.

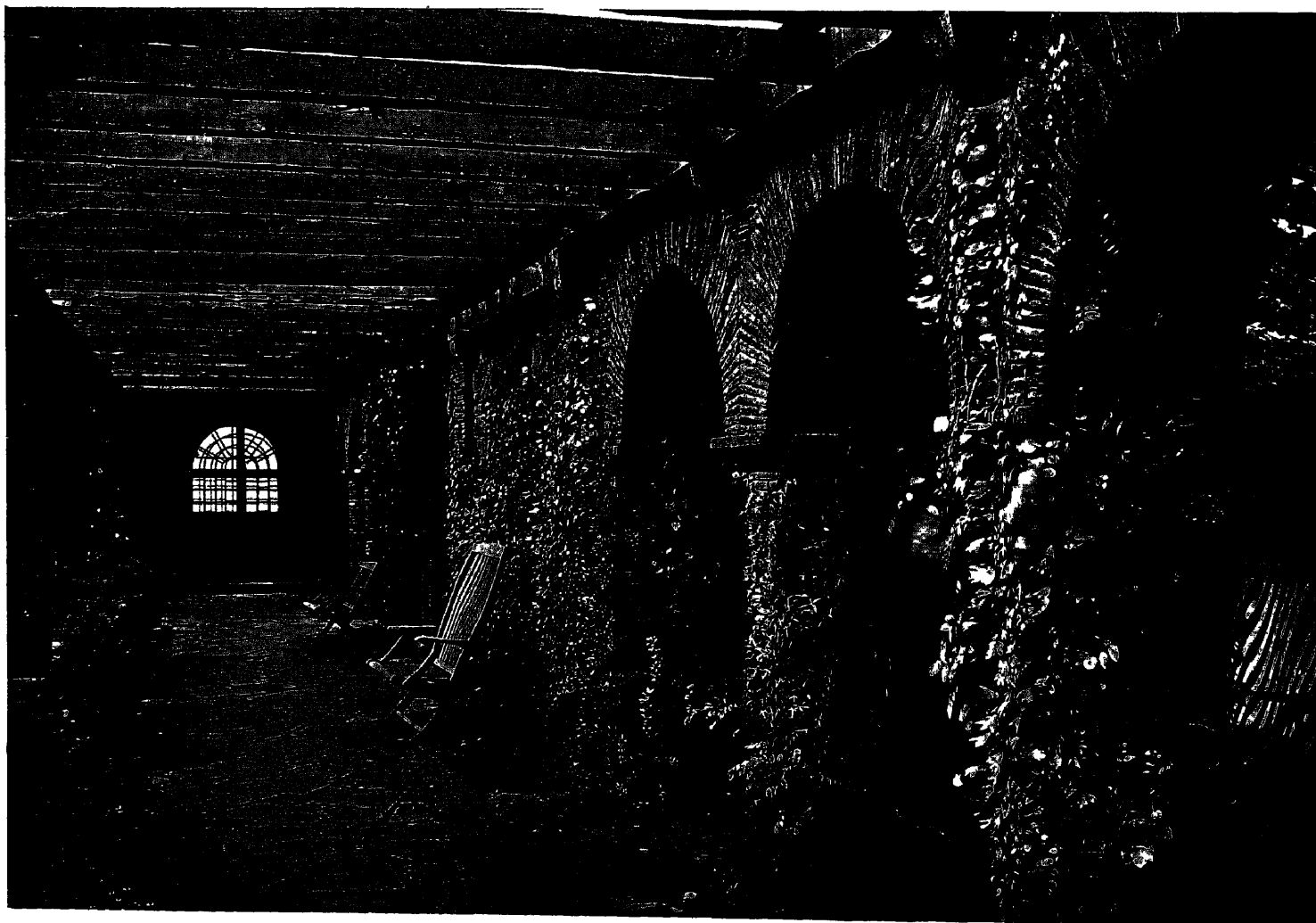


FIG. 494.—INTERIOR OF PERGOLA, SHOWING SHELTER AT END.

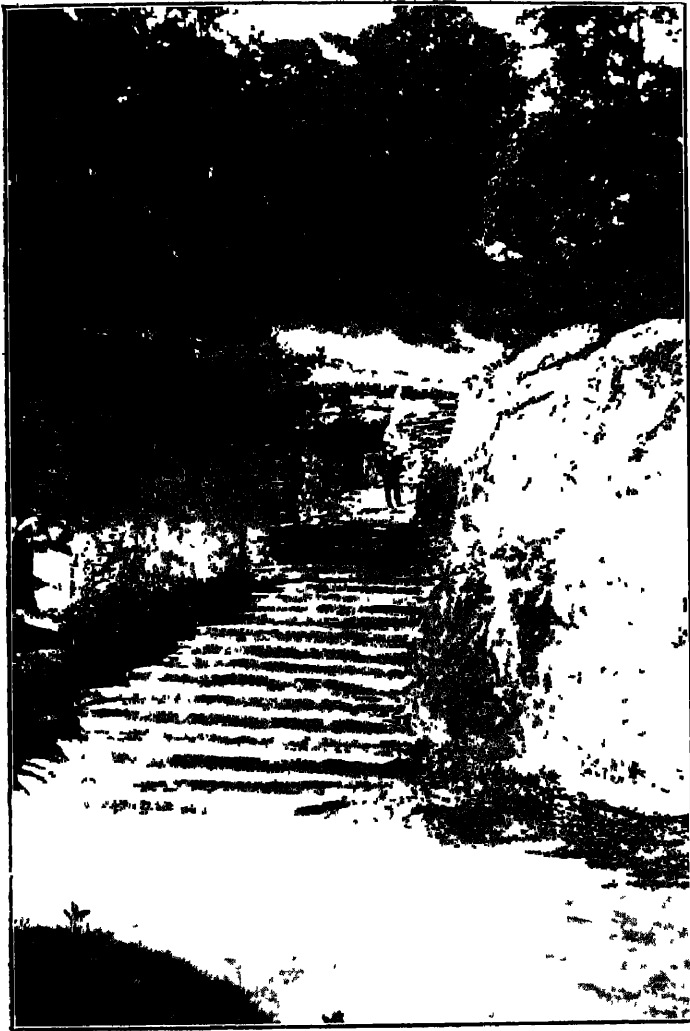


FIG. 495.—ROCK STEPS IN DELL, ROYNTON COTTAGE

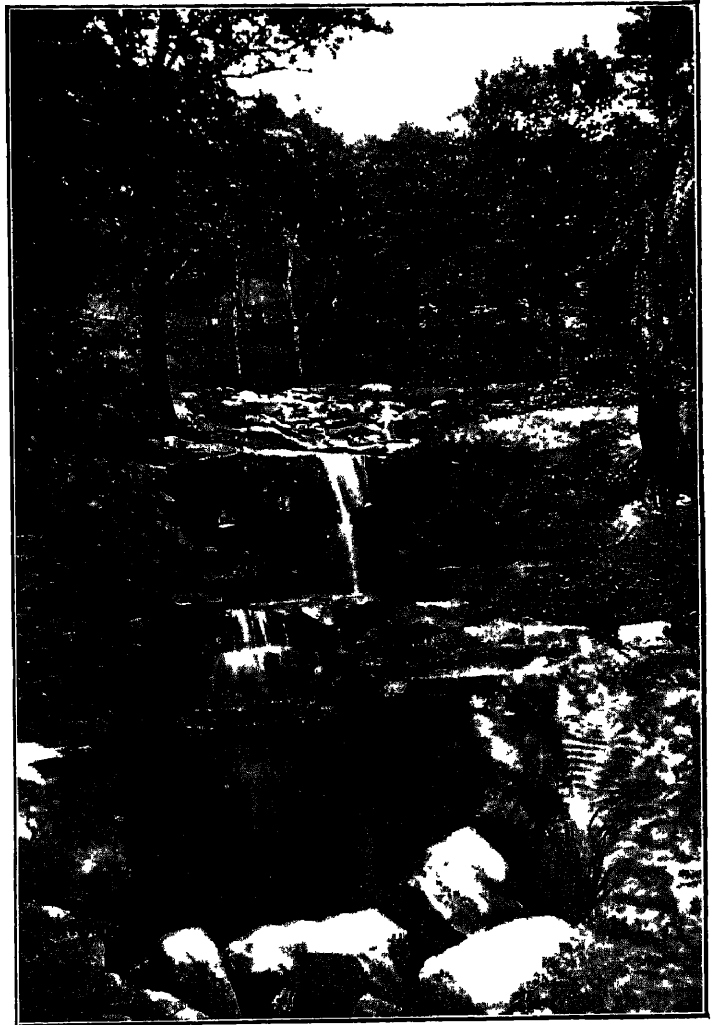


FIG 496 —WATERFALL IN DELL, ROYNTON COTTAGE.

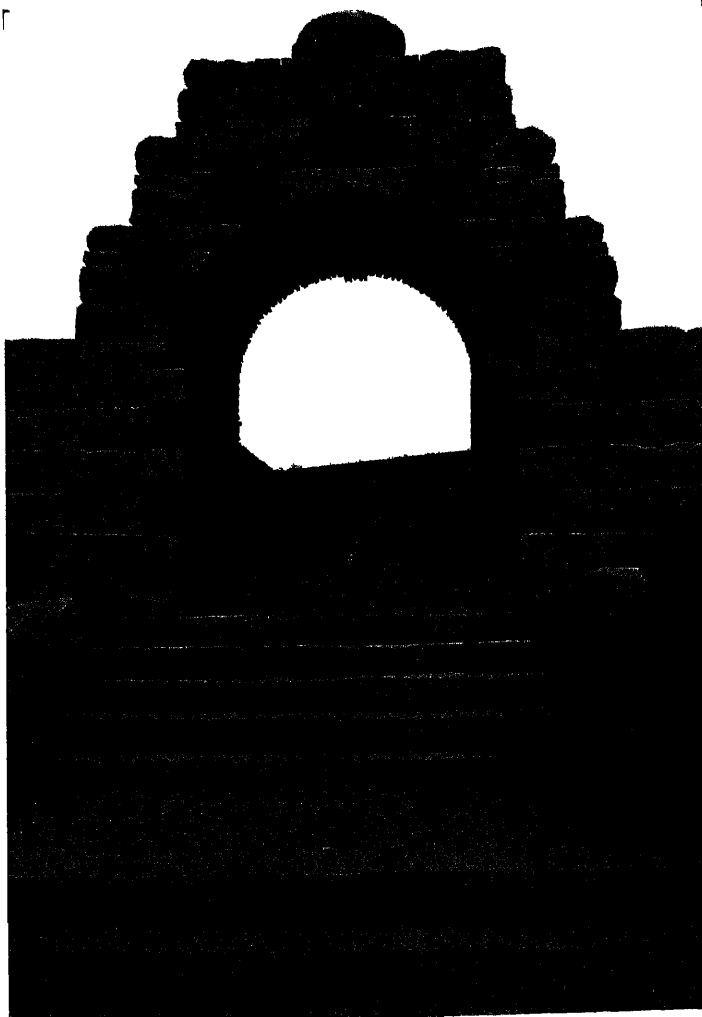


FIG 497.—ARCHWAY IN STEPPED WALK BEFORE PLANTING AT ROYNTON COTTAGE.



FIG. 498.—SUMMER-HOUSE ON TERRACE AT ROYNTON COTTAGE.

## EXAMPLES OF GARDEN DESIGN.

A  
*Mountain  
home.*

battlemented tower, which forms a landmark for many miles round. The summit of the Pike and the way up to it were also dedicated to the public by our client. The reproduction of Sir Alfred East's picture of Illustration No. 493 conveys an idea of the view.

Seeing that all the surroundings of the new garden were rugged and wild, therefore, in order to harmonize with them and fall properly into place and express their spirit, it must not only receive exceptional breadth of treatment at every point, but must, in its architectural details, be free from artificiality. How far this result has been attained must be left very largely to the reader to judge from a comparison of the plan with the accompanying photographs. The native stone has been quarried and used everywhere, and this of itself gives a pronounced local note which the heavy, rugged style of building adopted, and the brown-coloured slates used, have still further enhanced.

The great need of this garden, high up on the treeless uplands, was, of course, shelter. This has been obtained by means of the pergolas shown in more than one of the photographs, and by working in a little shelter for a seat wherever possible. Two of these are shown in illustration No. 492, and a careful examination of the interior of the pergola in illustration No. 494 will reveal one of several recesses in the back wall which have been contrived out of waste space and roofed over with rough thick glass, as otherwise they would have been very dark. Furnished with a few garden chairs and surrounded with the greenery clothing the pergola, they make cosy shelters from which to view the endless succession of hill after hill and pleasant valley between.

Apart from these small contrivances, however, there is one portion of the grounds expressly laid out to provide shelter. This is the small cloister-like enclosure to the east of the main part of the house, known as the Garth, and in the centre of which stands the dovecote shown in illustration No. 217. As will be seen from the plan, a pergola runs all round the Garth, which had not become covered at the time when the illustration just referred to was made. It is curious to see the delight of the more discriminating of the hundreds of visitors who come to see these gardens, when, after being shown all round the other portions of the grounds, they are suddenly introduced, by the opening of a door in the back wall of a pergola, to this new feature, which strikes exactly the note required to complete the composition. Its quiet air of seclusion and shelter from bleak winds, the cooing doves, and the rippling reflections in the little basin at the base of their cote, give the needed brightness and freshness.

There are doves and pigeons everywhere, and their introduction was a happy thought, giving a sense of life and animation to this domain among the solitary fells. They are to be seen in several of the illustrations, and two of the smaller dovecotes, quaintly roofed square erections, are shown in the background of illustration No. 497. On page 362 is a photograph of the tower and loggia, which punctuate the northern extremity of the grounds; an arched opening with a screen containing pigeon holes will be found in the centre of the photograph, and another to the extreme right; these form a part of a long series of such openings which grace this enclosing wall and relieve its otherwise unbroken face from monotony.

The planting of this garden was, of course, a special problem in itself, which could be solved only by many experiments. Everyone interested expressed the decided opinion that nothing whatever except the native heather and bilberry would grow by any means whatsoever. These wiseacres have been abundantly proved to be wrong, and now considerably over one hundred and fifty thousand trees and shrubs in great variety have been planted and are doing well, principally Pines and broad-leaved Hollies, Rhododendrons—especially the Alpine varieties,—Azaleas, Ledums, Kalmias, Gaultherias, and Andromedas. In addition there is a choice collection of Ericas and Menziesias; *Erica codonoides* does remarkably well. Rock plants, among which the various saxifrages are conspicuous, adorn the rough stonework in the walls, steps, and pergolas.

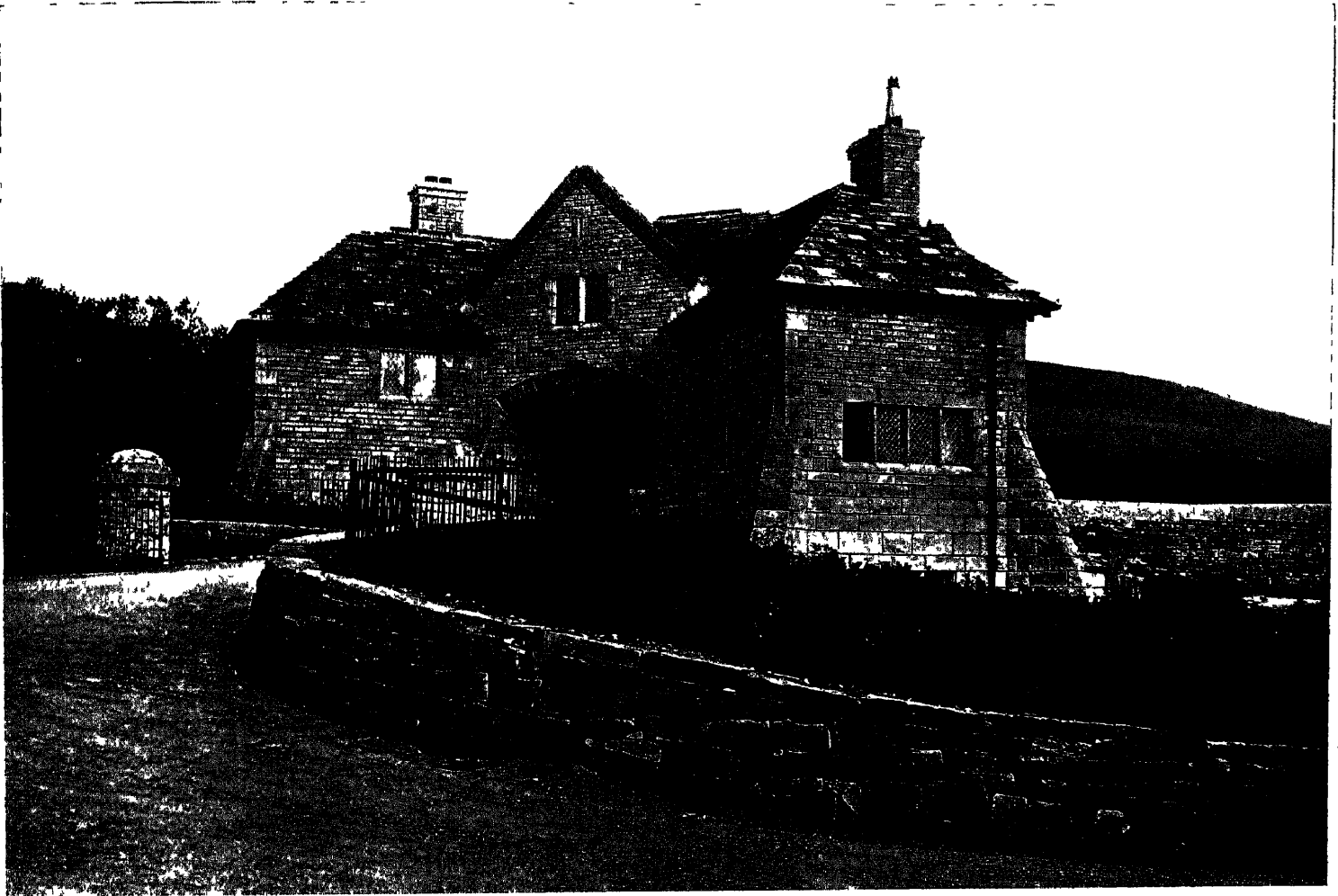


FIG 499.—ENTRANCE LODGE, ROYNTON COTTAGE.

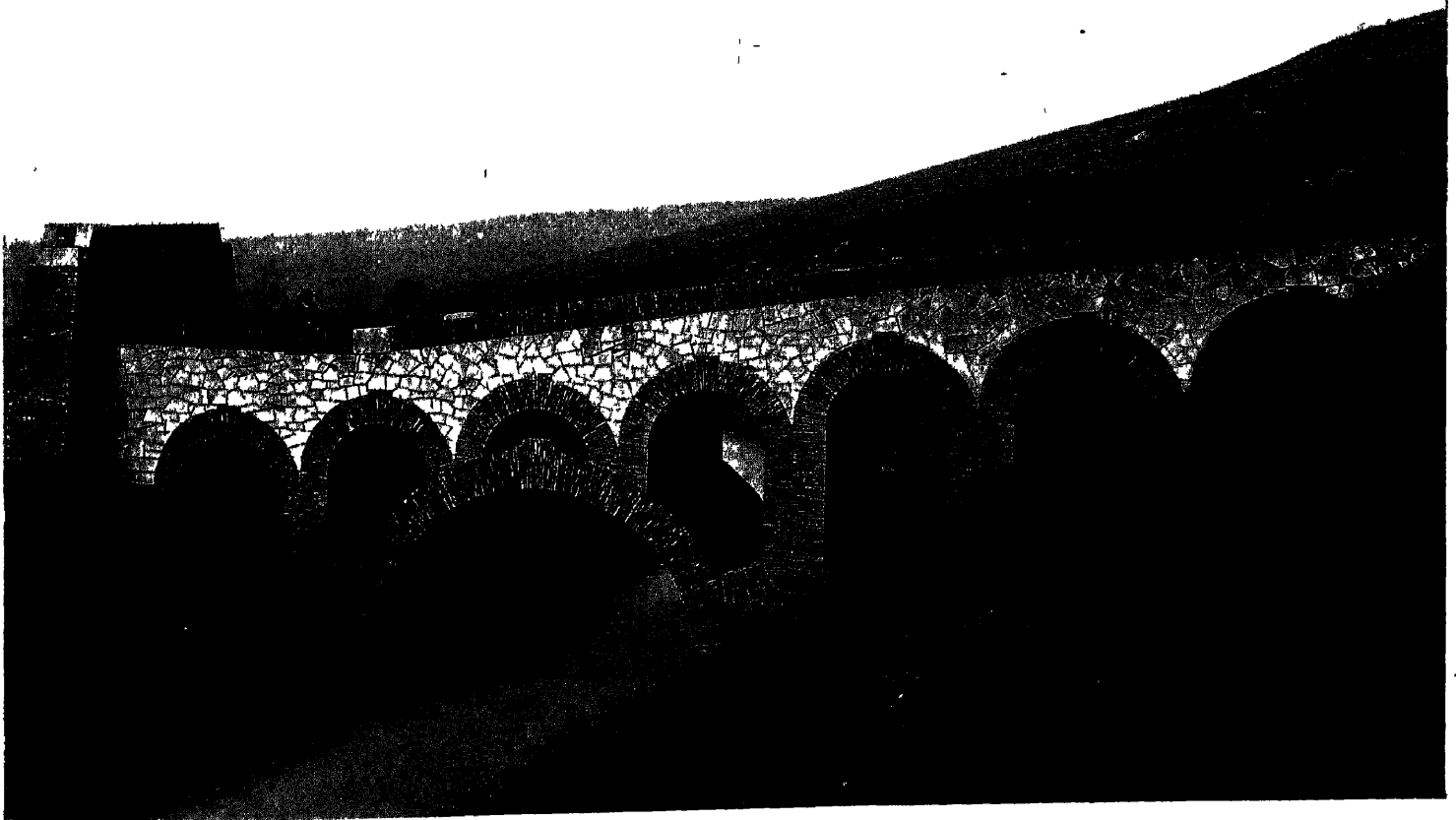


FIG. 500 —BRIDGE CONNECTING ROYNTON COTTAGE WITH PUBLIC PARK.

## EXAMPLES OF GARDEN DESIGN.

A  
*mountain  
home.*

The native rock which has a decided horizontal stratification has supplied many incentives to the picturesque. Partly by excavation and partly by construction, caves have been fashioned at four different places: at one place shown in Ill. No. 76, a connected series of them appear, their floors being flagged with the rough stone quarried in the process of formation.

At another place, the presence of a tiny mountain rill has been taken advantage of to form a rocky waterfall with a series of large pools below.

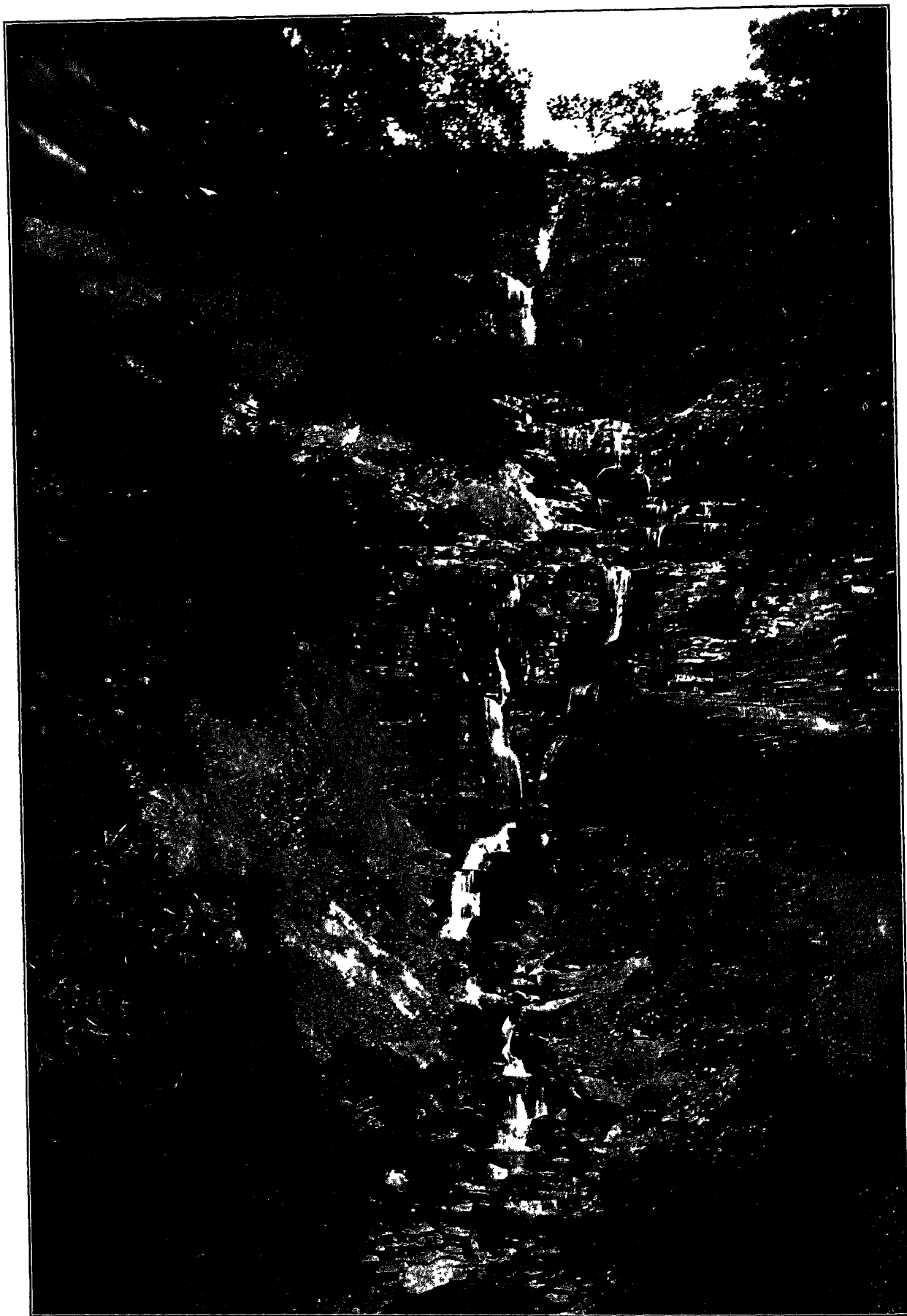


FIG. 501.—ROCKWORK AND WATERFALL AT ROYNTON COTTAGE FOR LORD LEVERHULME.



GARDENS TO A CLASSIC RENAISSANCE MANSION.

Seldom is a garden designer called upon to plan terraces and gardens to accord with a house so unique as the one shown in illustration No. 504. The architects who designed such houses have generally left some record of their intentions regarding the gardens; but whatever may have been planned, practically nothing has been carried out, a short length of balustraded terrace being the only survival of a definite garden treatment. In the park, however, an avenue of elms, evidently planted at about the same date that the house was built, would seem to show that a garden and park scheme had been prepared. There is also strong evidence, in the river-like lake shown in illustration No. 285, that some capable follower of the landscape school had been consulted at a later period, and it is probable that this gentleman set out the various groups of trees in the park.

Not only are the architectural merits of the house exceptional, but the site is also, the gentle fall of the ground lending itself to that broad classic treatment which the



FIG. 502

character of the mansion demands, while the views from the house across the well-wooded, undulating park, over the lake, and so forward to the well-timbered higher ground in the distance, provide quite a charming setting. Before Mr. (now Lord) Waring discovered the house, it had long been unoccupied and, like many originally first-class residences which lose caste, must either suffer transformation or stand tenantless and go the way of ruin. A plan for cutting up the estate into building plots, including the partial destruction of the house, had actually been prepared.

To obtain an adequate idea of the lie of the ground, it is necessary to compare the plan with the perspective view, noticing the drop from the centre of the terraces to the commencement of the central avenue, from which point there is a gradual fall to the lake along its entire length, which extends some 150 yards. As the perspective view suggests, there is very little cross fall, possibly 6 feet in all, this being towards the right of the picture. The garden scheme is not only helped by having a stately house as its centre, and a fall of ground which lends itself to proportionate terraces, but is also greatly



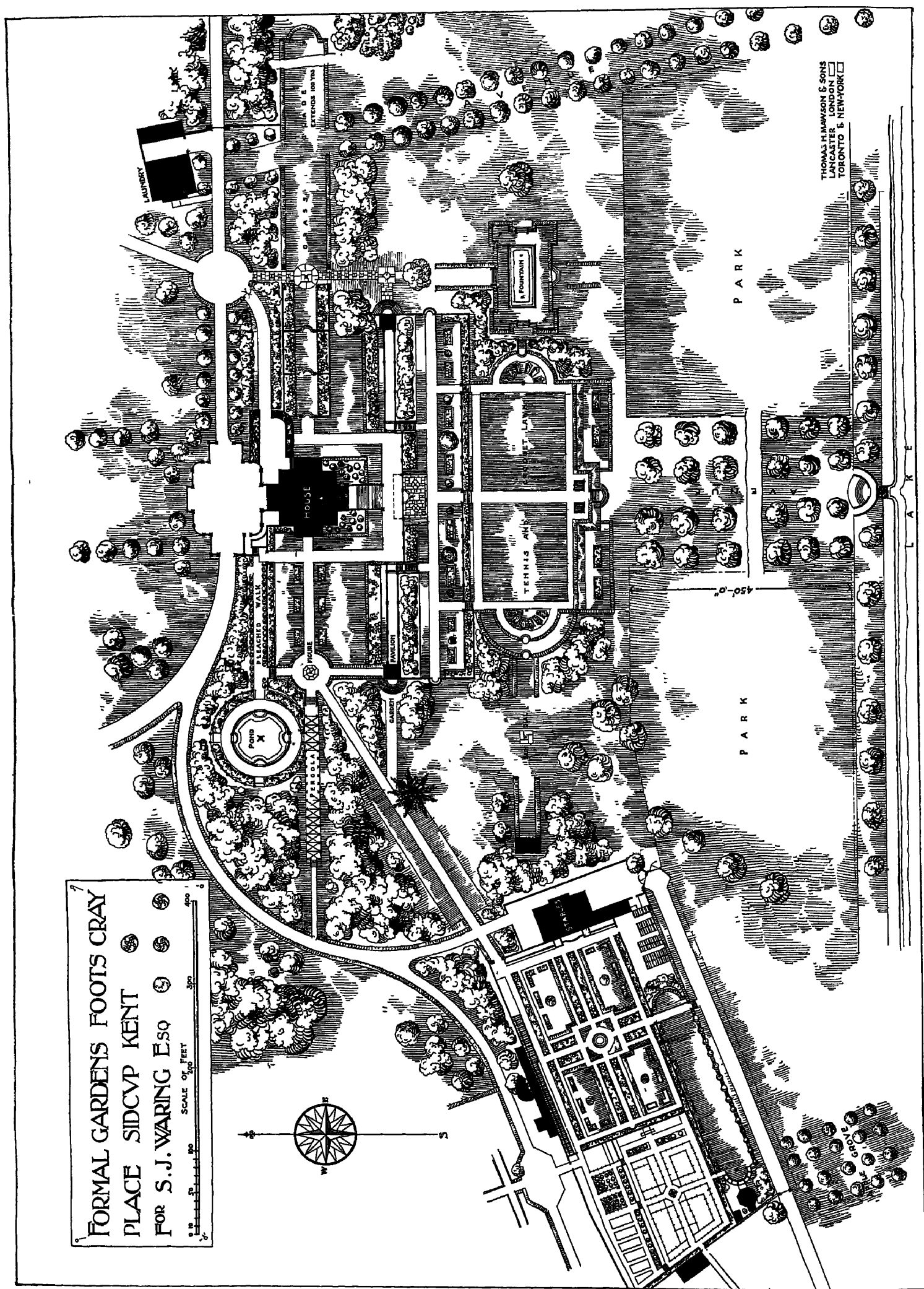


FIG. 503.

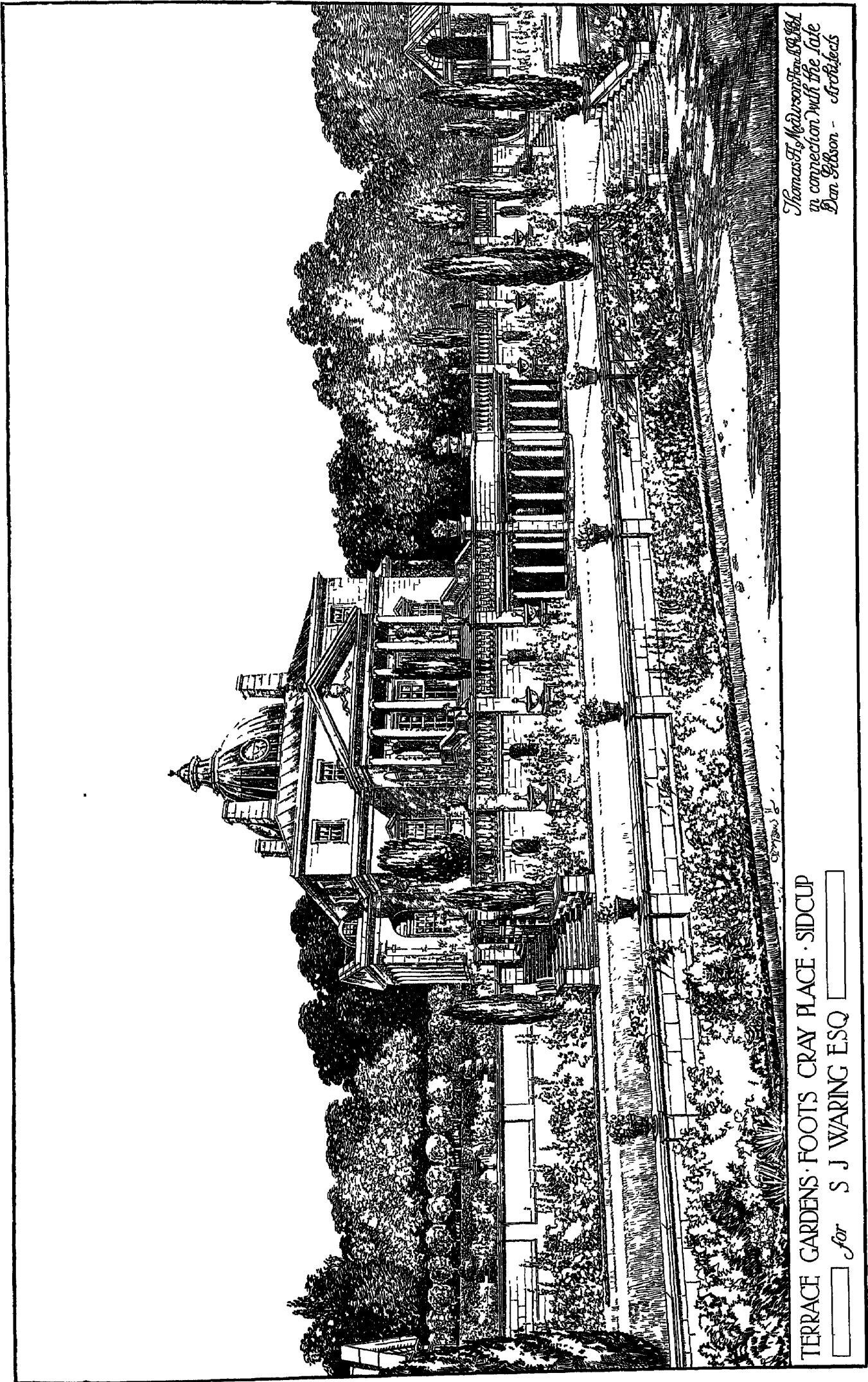


FIG. 504

## EXAMPLES OF GARDEN DESIGN.

*Classic  
Renaissance  
domain.*

assisted by the background of mature timber trees, composed of elms, oaks, sycamores, beeches and Scotch firs, which are indicated in outline on the perspective view; there are also a number of trees, including a noble cedar of Lebanon, within the grounds, which have in great measure influenced this plan.

The arrangement was further influenced by the laundry and the stables shown in the plan (Ill. No. 503), both of which are erections in the Georgian style of architecture, built with small red bricks, and having the typical cupola of the period and prominent wooden cornices and eaves—really effective buildings suitable for incorporation in the general composition. On the east, the drive runs past the laundry, thence through a coppice wood beyond. This laundry is so placed as to form a fitting architectural termination to the long and effective elm avenue, running slantwise at the top of the



FIG. 505 —VERANDAH AND BALCONY WITH PART OF AVIARY.

plan To the west, the drive leads with a measure of privacy between hedges to the kitchen garden and stables, the roof and cupola of which group happily amidst the trees, and are shown in illustration No. 168.

In the original plan of the house, the carriage court was on the south side, the wide handsome flight of stairs leading up to the entrance hall, and the picture gallery being on the north, this order is now reversed, with great advantage both to house and garden, chiefly because the carriage court level is now the same as that of the entertaining floor, while on the south the wide stairs or steps give an effective connecting link with the gardens, which, being on a much lower level, are overlooked from the picture gallery, which is also used as a salon. Another great advantage arising out of the alterations is that the gardens are now quite screened from the carriage drive, leaving the whole of the grounds on three sides of the house private.

To make a success of this scheme, length and breadth of line and plain unbroken

## EXAMPLES OF GARDEN DESIGN.

surfaces, were much more necessary than wealth of detail, and it is upon this bold simplicity that the composition depends. The several levels suggested differing garden departments, which, though intimately connected and part of one broad design, are nevertheless separate enclosures, each portion having its own special treatment and its own individual interest

*Classic  
Renaissance  
domain.*

The lay-out of the south front and the extended terrace base, with its pavilions at each end, are intended to secure proper connection between the house and garden. How far this merging of one part into another is likely to be realised is shown by the perspective view (Ill No 504) Those versed in garden design can picture for themselves the effect from the house, with the terraces as foreground to the park, and the wide double avenue uniting the lake and its classic pavilion with the formal garden. The lake is just included on the plan on the south side.

The central or balustraded part of the first terrace, which is old, and not supported on a sufficiently deep wall for the execution of the new scheme, has been underpinned, the centre being converted into a long alcove with a circular bay, which gives the appearance of an overhanging garden. This is paved with flags of two colours arranged to a pattern, the balustraded wall being ornamented with lead figures, while the flat-topped supporting buttresses arranged at intervals will be finished with lead urns. The wall dividing the second and third terraces is treated in a simple manner, the coping in the former case rising only eighteen inches above the grass, this second terrace is principally laid down in grass, to be used as tennis or croquet lawns. To this part of the gardens a good deal of colour is added by the long flower border under the terrace wall, and semicircular rose gardens at either end, the latter are backed by yew hedges with pillars and urns in front. The terrace wall, which divides the more ornate portions of the grounds from the park, is, like the second wall, simple in style, but in the central bay there is a parapet wall which rises 2 ft. 9 inches above the terrace level, with an imposing gateway leading down to the avenue.

Leading from the easterly half of the lawn, devoted to croquet, is a lily pond, advantageously sunk some three feet lower than the lawn.

Mention ought to be made of the reserve garden in the south-west corner, fronting the stables, which is the original kitchen garden transformed into a walled-in retreat of fruit-trees and flowers (Ill. No 149) It is bordered on the south side by a long bowling alley. Of this alley two views are shown in illustrations Nos 167 and 168, one looking west towards the pergola and octagonal garden house, and the other eastwards towards the stables with the hedge and row of limes which form its south boundary.

On both the east and west sides of the domain, the same feeling of breadth is maintained by broad lawns and extended vistas, especially on the east, where the pervading keynote is struck by wide glades cut through the surrounding woodland, which all radiate from the central dome of the house and are hedged in with tree box.

Beyond the bounds of the scheme included in the plan there is a cricket ground, and the wild garden shown in illustration No 317. A feature is also to be made of the water temple on the bank of the lake terminating the avenue, the upper part being arranged as a garden house and the under part as a boat-house. A somewhat novel arrangement for the overflow is that it falls towards the garden by a semi-circular-stepped cascade, and then returns in a culvert under the lake and into a stream in the meadows below.

### A HILLSIDE GARDEN.

Wood Hall, Cockermouth, which we have taken as a typical example of a hillside garden, is situated on one of the most romantic spots in our Island. Its beauty is not, however, of that haphazard order which one usually associates with the word

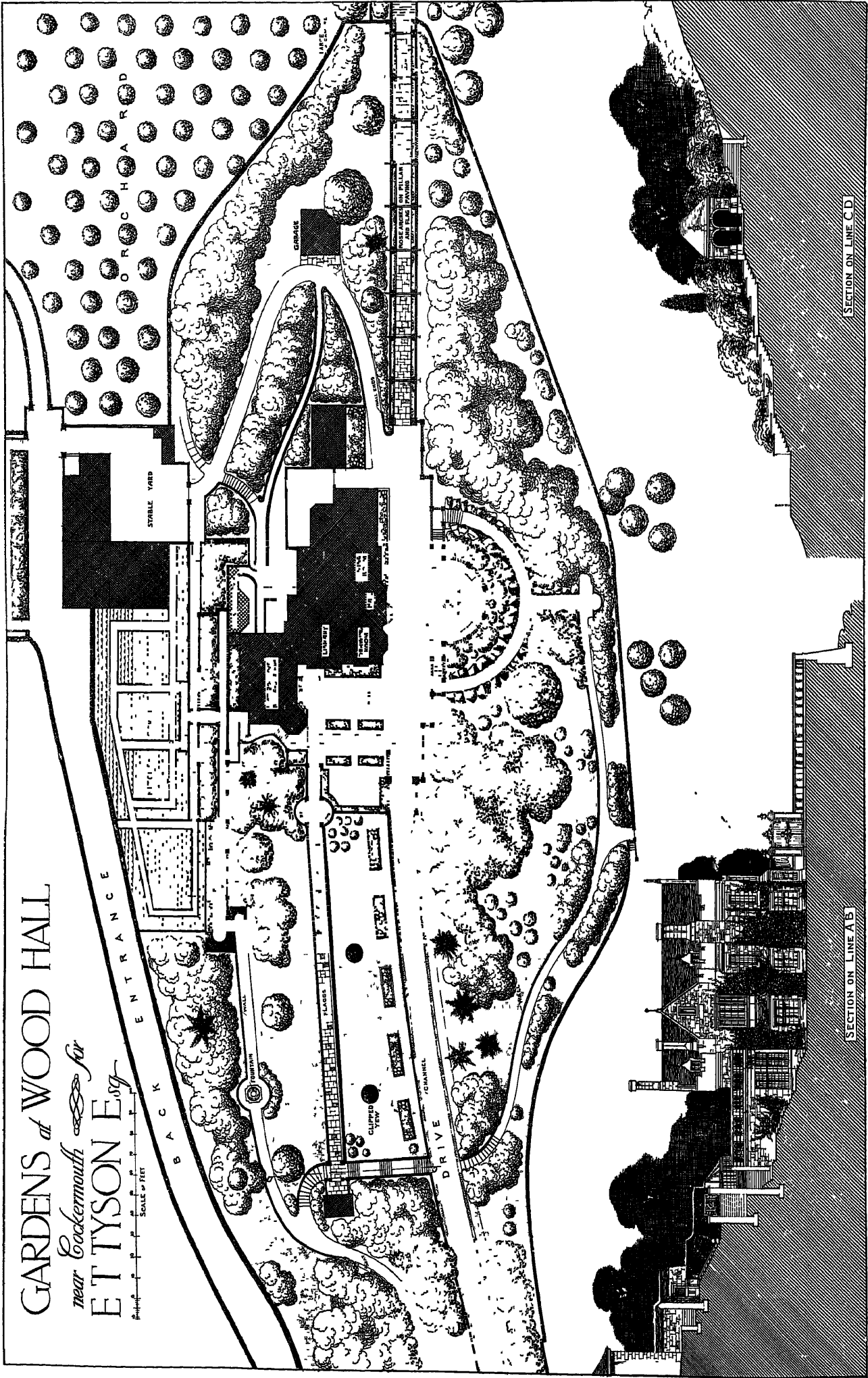


FIG. 506



## EXAMPLES OF GARDEN DESIGN.

picturesque The view from the south front is fine and spacious, with a disposition of watered vale and rolling woodland, of deep declivities, backed with the Lakeland mountains, all rising from rich flat meadows and broken by the sinuous lines and silver streaks of the river Cocker, to the west are the romantic ruins of Cockermouth Castle. No wonder that Turner loved the view from Wood Hall, and selected it as the subject of one of his great pictures, the prospects are worthily classifiable as sublime, and are of that character universally sought by our early landscape painters with whom composition counted for so much. *A hillside garden.*

It is a far cry from the present to the time when Waltheof, the first Lord of Allerdale, gave Wood Hall, together with other property, to the Priory of Guisborough, and since then, on the dissolution of the monasteries, Henry VIII. sold it to Henry Folson, Gent.,

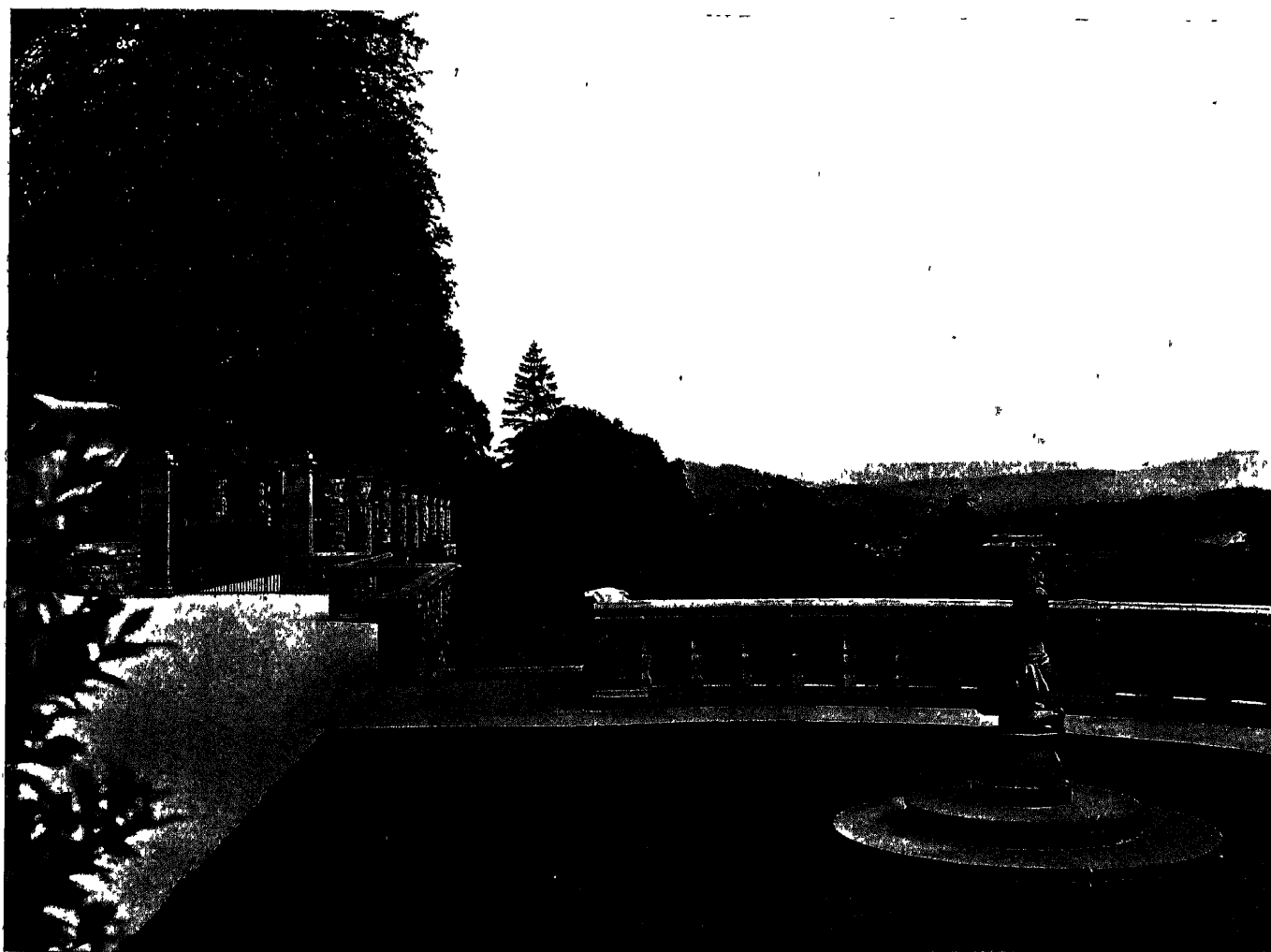


FIG. 507.—SUNDIAL BASTION AND PERGOLA, WOOD HALL, COCKERMOUTH

the ancestor of a line which held it for many years, until it came into the hands of the Fisher family, who subsequently sold it to the present proprietor, Edward T. Tyson, Esq. The domain has therefore not merely traditionary romance but well attested history to build upon. The last of the ancient monastic buildings disappeared long ago.

The present mansion was commenced during the Fisher occupancy, and after having been added to and altered more than once, was converted into the existing commodious country seat by the present owner, previous to laying out the grounds as shown on the accompanying photographs. Occupying a slope on the north side of the valley, it has therefore a full southern exposure.

The present owner has, with great taste and discretion, under the supervision of his architect, the late Mr. Ferguson, of Carlisle, added a new entrance hall on the south front, and the billiard-room shown in illustration No. 506. On the west, behind the house and crowning the highest part of the grounds, are the old stables and farmery,

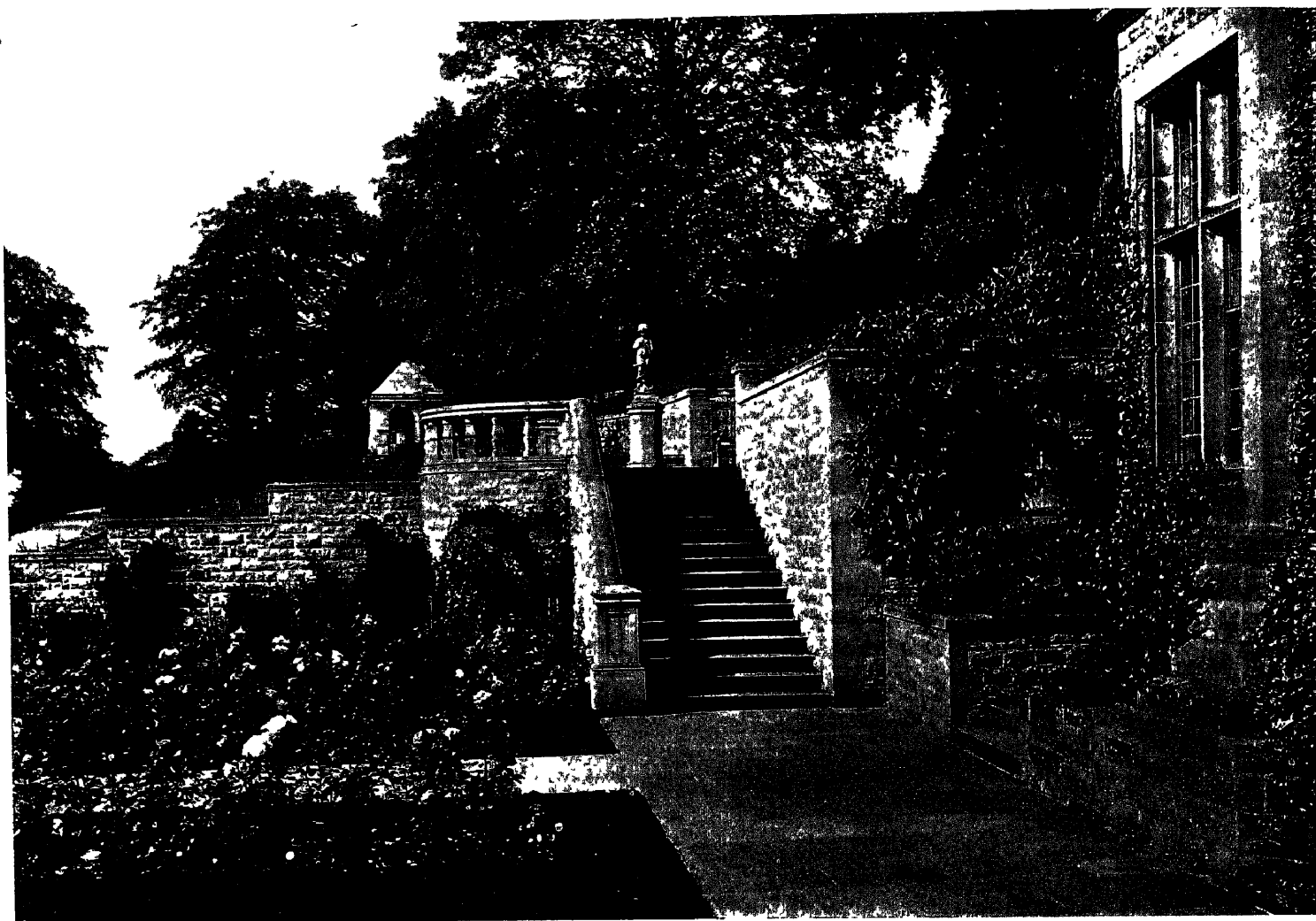


FIG. 508 —CONNECTION BETWEEN HOUSE AND GARDEN, WOOD HALL, COCKERMOUTH.

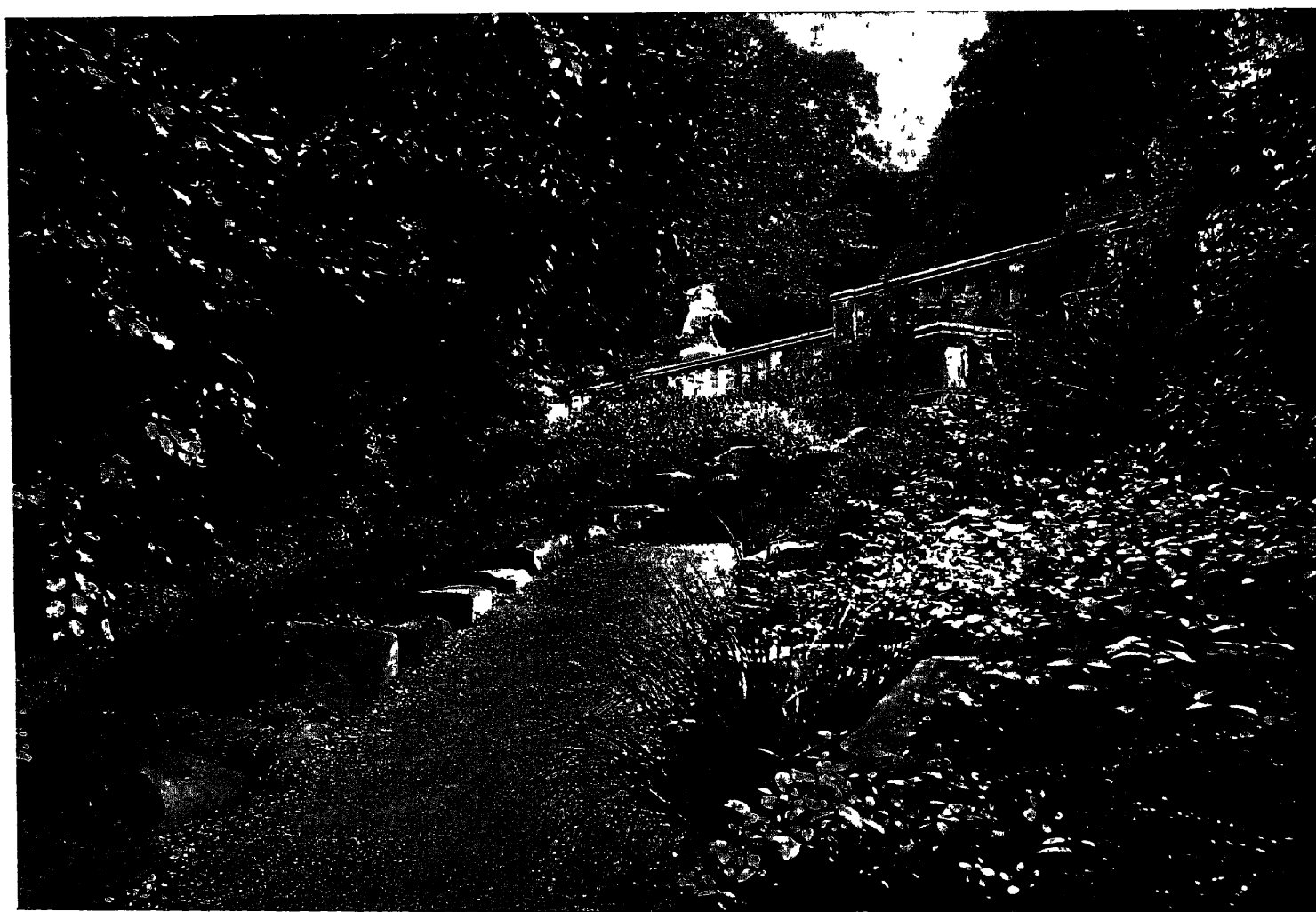


FIG. 509.—CONNECTION BETWEEN FORMAL AND INFORMAL, WOOD HALL, COCKERMOUTH.

## EXAMPLES OF GARDEN DESIGN.

and behind the billiard-room sundry strips and plots of ground surrounded by walls at conflicting angles, rendering this view of the grounds and gardens very unsatisfactory, and without any reasonable recompense in the shape of "cropping" ground. *A hillside garden.*

No alterations have been made to the total area or outer boundaries. The long strip forming the kept garden is almost equally divided into an upper and a lower garden by the drive, which enters the enclosure by a lodge entrance about one hundred feet west of the area shown on the plan. The gardens, the levels of which may be judged by the two sections (Ill. No. 506), stand almost in the centre of a beautifully undulated and well-wooded park. Partly by accident and partly by definite planning, the trees immediately round the gardens give great support to it, and not only secure that dominant note of continuity which only well-grown timber can give, but, by their positions in



FIG. 510 —THE APPROACH TO WOOD HALL, COCKERMOUTH.

relation to the principal view points in the garden, and also from the windows of the house, add enormously to the value of the vistas

The first aim in re-modelling the gardens was to secure a sense of space, and also connecting lines which would secure some architectural connection between the house and its setting. There was the further consideration that, as in most other hillside gardens, there were few walks which ministered to comfort or leisure. In short, a walk round the garden was an exertion.

The shape and contours and obliquities of line are so unusual that no very clear idea can be obtained from the plan of the great difficulties to be solved before any degree of order could be evolved, but a comparison of the plan (Ill. No. 506), with the photographs showing the improvements which have been effected, will make it at once apparent that, notwithstanding the difficulties to be overcome, results combining practical as well as æsthetic advantages have been attained. The level spaces immediately round





FIG. 512 —PERGOLA AND PARK ENTRANCE, WOOD HALL, COCKERMOUTH.



FIG. 511,—THE SUMMER HOUSE, WOOD HALL, COCKERMOUTH

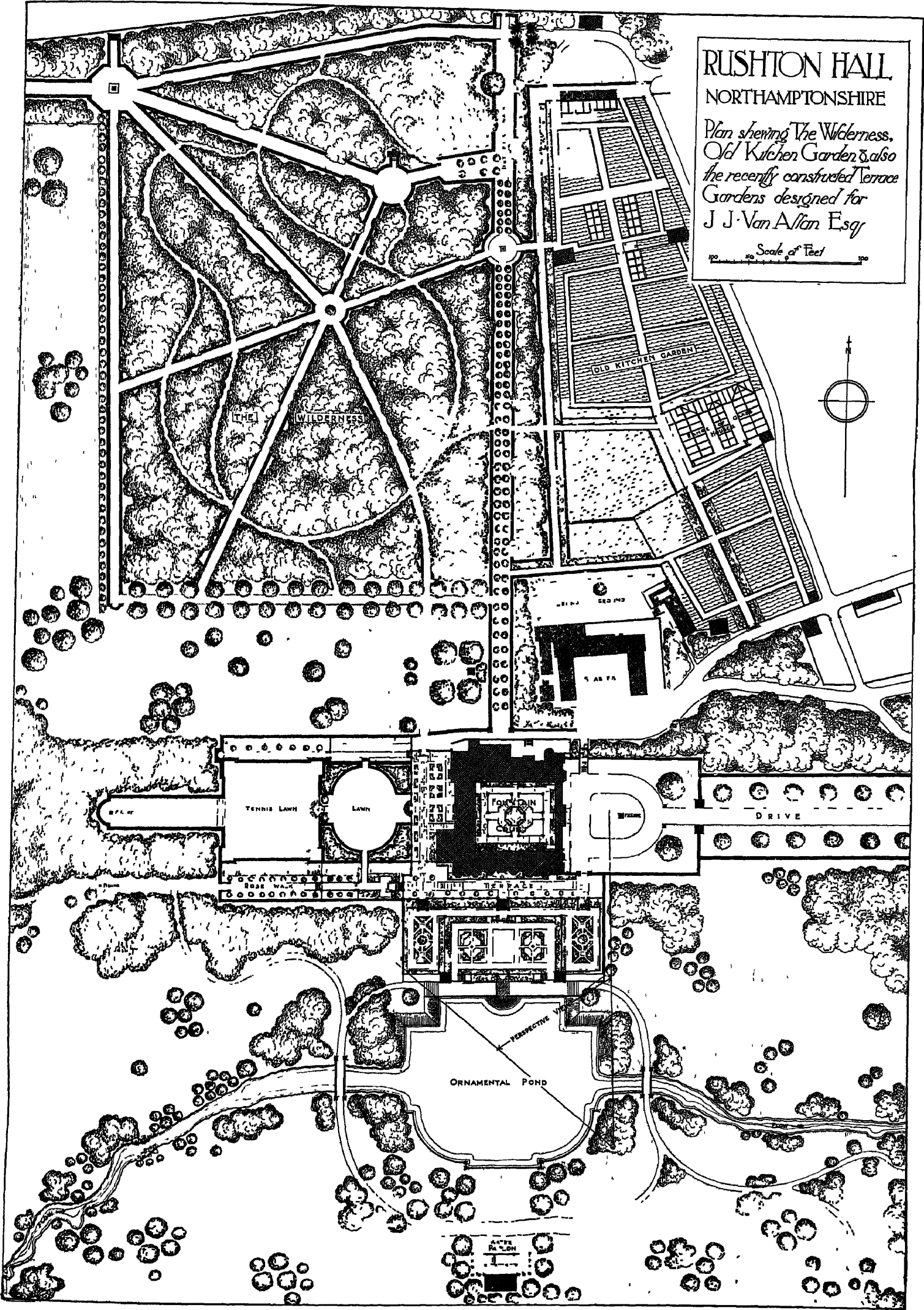
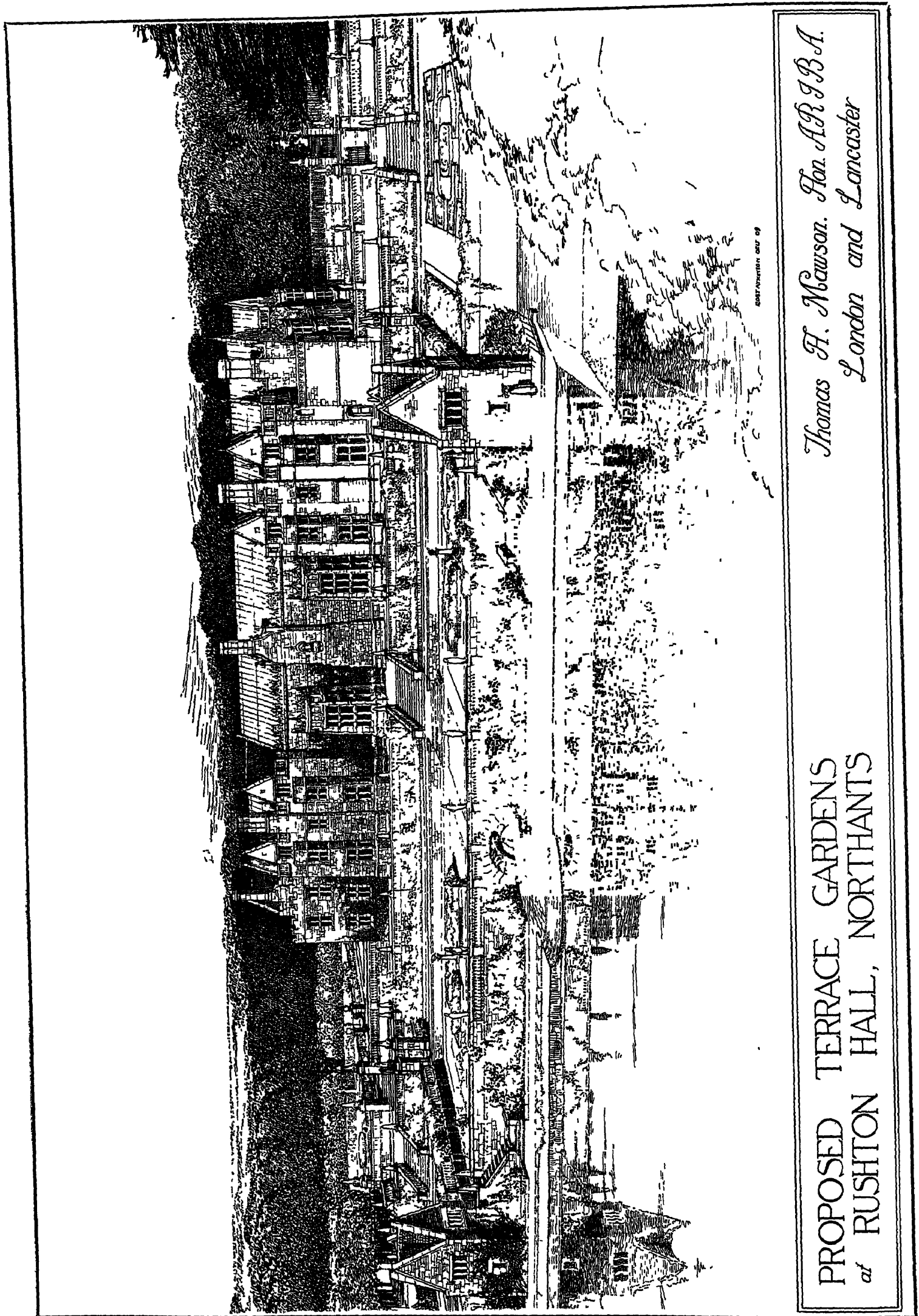


FIG. 513



*Thomas H. Mawson. Hon. A.R.B.A.  
London and Lancaster*

PROPOSED TERRACE GARDENS  
at RUSHTON HALL, NORTHANTS

FIG. 514.

## EXAMPLES OF GARDEN DESIGN.

the house, but especially on the south and west fronts, have been considerably expanded, and the line and gradients of the carriage drive improved. The terrace on the south front has been extended, and a pergola constructed on the east side extending from the carriage court to the park postern gate. This latter feature has secured a balanced effect on what was previously the least satisfactory side of the site. Instead of the narrow winding walks on the west side, good wide paths, some of them flagged, have been constructed, and at one of the finest viewpoints the garden-house shown in illustration No. 511 has been erected. Another fine view-point has been taken advantage of by the insertion of a three-arched alcove under the west end of the south wall of the kitchen garden. *A hillside garden.*

On a hilly site like the one at Wood Hall there is a great opportunity for wall-gardening, and this feature has been made the most of, the walls along the side of the drive, pergola, and several of the walks being planted with a choice variety of Alpines and other wall plants, whilst under the terrace and on the lower side of the drive a large amount of rock from a local quarry has been added to supplement the several outcrops on the site. In many cases these have a background of Rhododendrons, Azaleas, and a choice variety of Kalmias, Andromedas, Alpine Rhododendrons, and Ericas. In other parts there are backgrounds of choice Japanese Maples interspersed with and relieved by compact-growing conifers. The rock garden under the terrace is devoted to Alpines, and in addition some of the better herbaceous plants have been added to give mass and a connected effect.

As the garden in its present form is scarcely a year old, several of the views lack the softening touch which age brings and, though the scheme is full of promise, it is almost impossible to illustrate it so as to give the reader any idea of the ultimate possibilities. The nature of the surrounding country has also to be taken into consideration before one can form any adequate conception of the scheme as a whole from the photographs. The exceptional nature of these has already been hinted at, and the ancient castle, which adds so greatly to the interest of the views, can be seen in the middle distance of illustration No. 510. In order that it might harmonize with its surroundings, the architectural details were kept solid to a degree which would in a less rugged neighbourhood have been heavy, but which here, when clothed with greenery will fall naturally into place; grace and lightness being obtained by the use of statuary at specially selected points where it would mark the centre of a bastion or the termination of a balustrade.

### AN OLD TUDOR GARDEN RESTORED, REMODELLED AND ENLARGED.

Of the many stately homes which adorn the county of Northampton, Rushton Hall is one of the noblest, and, from the point of view of the antiquarian with an appreciation for architecture, certainly one of the most interesting and important. It still retains evidences of the noble architectural style in which the great men of the Tudor and Stuart periods built their homes, and whereby they expressed their state and dignity as peers of the realm.

That part of the house situated at the south-west corner, now converted into a library, dates from mediæval times, the elevation facing west being built in rough broken coursed rubble and having small lancet windows. Rushton Hall was, however, best known to architects for its wonderful Jacobean strapwork carried out with much imaginative skill by the clever stoneworkers of that time. At a rather later date, the old L-shaped main facade seen in the perspective view was converted into a square large enough to enclose the formal panel garden shown on the plan. The later work is much more restrained in character than the earlier parts, and has added enormously to the collective effect, the connecting corridor and raised terrace between the south and west

## EXAMPLES OF GARDEN DESIGN.

*An old  
Tudor  
garden  
restored.*

wings introducing a feature which is most happily conceived, allowing not only a fine perspective view of the house, but at the same time admitting the morning sun.

The late owner, J. J. Van Alen, Esq., has carried out many alterations and improvements, which, though they destroy some of its ancient charm, have at the same time modernised the house and made it more hygienically perfect.

Upon first visiting Rushton, there was no suggestion to the eye in the undulating lawns of a terraced garden immediately round the house, but that such gardens had at one time existed was amply proved by the outlying portions, such as Dryden's walk, the wilderness, and the kitchen garden, and when the foundations were dug for the new terraces, fragments of the old walls, with their beautiful balustrades, pillars and stone urns were brought to light, and records preserved. These old walls were curiously enough within a few feet of the lines adopted for the new ones, the levels of the terraces being approximately the same. Their destruction was probably suggested by Capability Brown, or one of his intimates, who at the same time formed the lake and the landscape garden beyond, and who also planted the clumps of trees in the park.

In altering these gardens the object aimed at was to give a proper setting and base to the mansion, and at the same time to weave the wilderness and later landscape part into a well-connected and harmonious whole. This necessitated the large scheme of terraces shown in the illustrations, and also the restoration of much, both in the old formal scheme and the landscape gardens, which years of neglect had allowed to grow out of recognition. The large lake covering many acres had silted up and become a morass overgrown with willows and bogweeds, creating an unhealthy area partly covered with shallow stagnant pools which under certain atmospheric conditions were offensive. All this area had to be cleared out at great cost. This gave an opportunity for the construction of the formal pond shown in the perspective view. In the park all the long vistas had been closed up by trees of forty or fifty years' growth. These had to be cleared and other plantations arranged to secure a continuity of effect. In the wilderness, the hedges by which the different portions were surrounded had overgrown the glades, and in other parts had been entirely removed. All that was attempted for these two sections of the scheme was the restoration of the plan originally laid down.



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